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the TRAVELLERS' Digest

Number 12

For 2300AD —
Exploration:
American Style
Part 2

ASV-97 –
A Vehicle Design
by Karl Martin

Traveller:
Marc Miller and Joe Fugate
Setting Up Adventures
in MegaTraveller

Life Underground
FEATURE ADVENTURE

Inside Information
A MegaTraveller Adventure
by William Connors

Replacement Body Parts
This Issue's Medical Digest

Traveller Arsenal
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Life Underground
FEATURE ADVENTURE

"Humans are perhaps the most versatile creatures in the universe. *Any* planet can be home if enough people are determined to call it home."
—Akidda Laagiir, from "Toward Solomani Space" in the *Travellers' Digest*, 1106

TABLE OF CONTENTS

Editors' Digest 3

Life Underground, Feature Adventure
- The Characters 4
- Non-Player Characters 6
- Working For a Living 7
- Referee's Synopsis 8
- Krenstein's Project 8
- The South Polar City 8
- Decisions, Decisions 9
- Dissidence, Dissidents 9
- War History 10
- Meanwhile, Back at the Ranch 10
- Getting it all Together 10
- Inthra Survey Data 11

Inside Information, MegaTraveller Adventure
- Adventure Overview 12
- Braage's Plans 13
- Player Introduction 14
- Across Enemy Lines 15
- Amid the Enemy 16
- War News 16
- Outward Bound 17
- Options for Heroic Characters 17

The Brinn, An Alien Race for MegaTraveller 18

Dethenes Subsector 25

Torrel —System Survey 26

The Old Expanses Sector
- Xboat Routes 33
- Library Data 34

Replacement Body Parts—Medical Digest 35

Adventuring in the Shattered Imperium—The Gaming Digest 39

The Traveller Arsenal 41

Traveller Q&A 42

Exploration: American Style, Part 2 44

ASV-97: A Multirole Vehicle for the USMC 48

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Editors' Digest

FROM THE DESKS OF GARY L. THOMAS AND JOE D. FUGATE SR.

Hey! We're back again.

And we'll admit it, we've been busy -- designing and editing **MegaTraveller** cost us a lot of time and put us behind schedule. Adventure 11 was about 12 weeks late; this issue is hitting the stands six weeks behind schedule...could it mean...? Yes, next issue will be on time!

Seriously, though, we know because of your comments that you miss our magazine when it's late, and we hope you accept our apologies for the last two issues. Meanwhile, you've had plenty of time to read **MegaTraveller**, we hope.

We're getting plenty of comments from all of you about the books. Remember, our **"Traveller** Q&A" column is a resource for you if you have any questions about anything to do with **MegaTraveller**. Send us your questions and we'll feature them in a future issue of the *Digest*.

Meanwhile, the rest of this issue is jam-packed with excitement. The feature adventure dumps the characters on a forboding world. Can they find their way back?

The **MegaTraveller** adventure introduces your merchant characters to a brand-new minor race on a hostile planet.

The" Medical Digest" in this issue is the first of a two-part article on replacement body parts, a subject that has never been dealt with fully in **Traveller**. Now your character won't mind it as much when that laser blast severs his hand at the wrist -- he might even get something better to replace it. Next issue, we'll wrap up with complete game details, like the ones you're used to from us in books like *Grand Survey* and *Grand Census*.

Now that you have **MegaTraveller**, what kinds of exciting adventures can you play? The "Gaming Digest" answers that question with several suggestions courtesy of **MegaTraveller** co-designer Joe Fugate.

For **2300** players and referees, we conclude our two-part article on exploration in the American Arm. We also have the USMC ASV-97 Airship by Karl Martin.

Speaking of next issue (sure we were, up in the first paragraph), it's a real treat. Our four characters finally reach Terra, the home of the human race. There, in the Sahara Gardens Terraforming Project, something funny is going on...

Also included in that issue are a character generation system for dolphins, an example of **MegaTraveller** ship design, background data on the current situation in Ilelish, a "Tech Briefs" column on terraforming techniques, library data on the Solomani Rim, and pentapod starships and a new character class for **2300**. And that's just the beginning: this is literally our *biggest* issue yet!

ORIGINS 88: This year's game convention will be combined with GenCon, to be held August 18-21 in Milwaukee, Wisconsin. We'll be there in full force this year, right next to GDW. Plan to join us if you can. Write for full details from 1988 GEN CON/ORIGINS Game Fair Headquarters, P.O. Box 756, Lake Geneva, WI 53147.

Errata: Last issue's player characters had the original social standing rather than their actual knighthood status of B. (Thanks to Dan for pointing that out.)

Coming Soon to a Gamestore Near You: *101 Vehicles* and the **MegaTraveller** *Grand Survey* (about 40% all-new material) will both appear at the end of June as scheduled. *Starship Operator's Manual* and the **MegaTraveller** *101 Robots* will be published later this year.

NEWS FLASH: By the time you read this, Digest Group Publications and GDW will both have their own accounts on the Delphi network. (Our logon name is DIGESTGROUP and GDW's is MARCMILLER.) Those of you who subscribe to this service will be able to send us electronic mail messages, participate in online forums, and electronically playtest our adventures. (We plan to playtest our Earth adventure online on Delphi — you know, the adventure coming in *Digest* 13.) You'll also be able to subscribe to our magazine or order products without leaving your house. For more information,write to:

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GET YOUR VOTES IN: We'd also like to encourage you to vote on your picks for the1987 ORIGINS Awards. **MegaTraveller** has been nominated for the category "Best Role-Playing Rules, 1987" by the Academy of Adventure Gaming Arts and Design. The Academy makes the nominations, and you, the gaming public, do the voting for the final awards to be presented at this year's ORIGINS/ GenCon Convention. Here's your chance to make your vote known on **MegaTraveller**.

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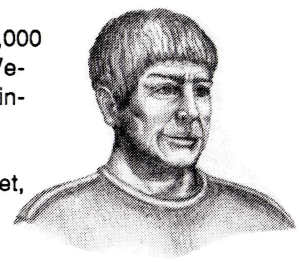
Please enclose $2 to cover postage and handling; a ballot will be mailed to you.

If you think **MegaTraveller** deserves to win, get with it. Order a ballot and vote!•

THE CHARACTERS

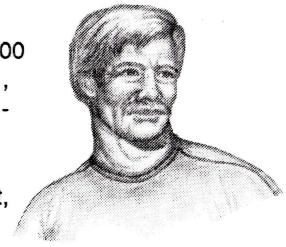
These adventures are intended for the characters listed below. Even though the characters listed are all male, feel free to change any or all of the genders as desired. The character data is listed using the **MegaTraveller** format.

Akidda Laagiir, Journalist



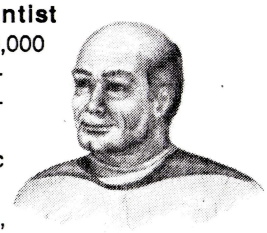
858AAB Age 45 6 terms Cr 21,000
Interview-5, Streetwise-3, Grav Vehicle-1, Wheeled Vehicle-1, Ad-min-1, Brawling-1, Computer-0
Holocrystal Recorder
Starport A, Large, Dense Atm, Wet, High Pop, Mod Law, High Stellar
Born: 319-1059

Dur Telemon, Ex-Scout



B7A85B Age 37 3 terms Cr10,000
Auto Pistol-3, Survival-2, Pilot-1, Grav Vehicle-1, Engineer-1, Gambling-1, Brawling-1, Computer-1
Auto Pistol
Starport A, Large, Dense Atm, Wet, High Pop, Mod Law, High Stellar
Born: 038-1068

Dr. Theodor Krenstein, Scientist



495FCB Age 61 10 terms Cr 300,000
Robotics-5, Leader-3, Electronics-2, JOT-2, Laser Rifle-1, Grav Vehicle-1, Medical-1, Mechanical-1
Hand Computer (TL15), Electronic Tool Kit, Robot AB-101
Starport A, Small, Vacuum Atm, Wet, High Pop, Mod Law, High Stellar
Born: 173-1043

Aybee Wan Owen, Valet

Apparent Stats:
8D9C7B Age 19 0 terms Cr 0
Medic-1, Linguistics-1, Grav Vehicle-1, Laser Welder-1
Starport A, Small, Vacuum Atm, Wet, High Pop, Mod Law, High Stellar
Born: 049-1081
Actual Robot Profile:

AB-101, Pseudobiological Robot

Constructed in 1091 by Dr. Theodor Krenstein
561x2-A2-PM327-FDC7(J) Cr11,970,600 319kg
Fuel=78.1 Duration=21.7 TL=15
7/17 (Jack)
Head (10%), 2 Lt arms
2 Eyes (+1 light intens), 2 ears, voder, touch sensors
Pwr int, brain int, TL 15 holo recorder, Lt laser welder
Medical-1, Linguistics-1, Grav Vehicle-1, Valet-1, Laser Welder-1, Rescue-1, Emotion Simulation

PLAYING THE CHARACTERS

Some of an adventure's most memorable moments are those that occur as the players play out their character's roles in a believable manner. To aid in this, we provide the following background details and role-playing pointers for the player characters.

AKIDDA LAAGIIR

Position: Current recipient of the *Travellers' Digest* Touring Award.

Akidda Laagiir started at age 18 as a copy boy with the *Mora World Review*; his friendly face and ability to gain the trust of others contributed to his steady career progress.

Living on Mora, with its charismatic dictator, the Duchess Delphine the Matriarch, is sometimes a trying experience for any journalist, which may explain his occasionally iconoclastic actions. He is slightly prejudiced against "the system", preferring fresh ideas and fresh ways of doing things. This boldness (especially in interview situations) has also contributed favorably to his career.

His admin skill was learned while moving up the ranks, but it is a skill that he would just as soon not need: he much prefers cutting through to the heart of a situation. While he is sensitive to the needs of others, he has a well developed self-preservation instinct that allows him to quickly adapt to a strange locale or culture—a skill that has saved his neck on more than one occasion.

Like most writers, he is consumed with curiosity, and when the *Travellers' Digest* journalism contest was held again in 1098, he was among the first to apply. His piece was entitled 'The Imperial Frontier: The Next Millenium.' In it he discussed the spinward frontier sectors of Deneb, Spinward Marches, Trojan Reach, and Reft and their role in shaping the growth of the Imperium in the next 1,000 years. On 258-1099, he received the announcement that he had won the coveted Travellers' Digest Touring Award.

Akidda has been travelling and submitting articles of his travels for over four years.

Role-Playing Notes: Akidda's strong interview skill indicates he has a real nose for a good story: to play him otherwise would be untrue to his character. His natural curiosity makes him likely to pursue "trouble", rather than run from it.

The counter-balance to Akidda's tendency to seek out such trouble is his streetwise skill, which enables him to lessen the harmful results of an otherwise awkward situation. His streetwise skill may enable him to "stumble" onto a valuable source of information the others would overlook.

Keeping this in mind, the referee should use the NPCs encountered by Akidda as those with the most valuable information to the group, as a result of Akidda's abilities. Akidda's phenomenal Interview-5 skill gives him tremendous insight when dealing with people.

DUR TELEMON

Position: Ex-Scout on reserve status.

Dur Telemon was *born* into the Scout service. His father was in the Scout service while Dur was growing up, and both of his grandfathers had served in the Scouts in their younger days. Dur enjoyed nothing more as a boy than to sit and listen to their tales of adventure.

The Fourth Frontier War broke out when Dur was a teenager—his father's service in the war was a source of pride for the entire family and deepened Dur's love for the scouts.

Dur's individualistic nature meshed well with his duties in the Exploration Office of the Scout Service. In his first

term, a 'routine' mapping expedition on Pannet/Rhylanor suddenly turned into a hostage rescue operation, and it was then that Dur happened to save Dr. Krenstein's life. Neither of them is overly emotional about it, but it was that initial chance encounter that grew into a respect and friendship between the two men over the years.

Dur's second and third terms were spent in District 268 and the Five Sisters subsectors doing various planetary surface and orbital surveys. During these surveys, Dur learned much about staying alive and living off the land in unusual environments. Halfway through his fourth term, he was transferred from his field post in the Exploration Branch to a bureaucratic position in Fleet Support.

Dur has resigned from the Scouts and has been travelling with his uncle, Akidda Laagiir.

Role-Playing Notes: Dur is the brash adventurer of the group and as such he is the least likely to fear physical confrontations or physical discomfort. He is also the most likely of the group to act without giving due consideration to the consequences. He has genuine concern for others and is the most likely to risk his life to save someone.

DR. THEODOR KRENSTEIN

Position: Graz Redniz Chair of Computational Robotics at Rhylanor Institute of Technology—on sabbatical leave.

Dr. Theodor Krenstein is a gifted, multi-talented scientist, with interests from anthropology and archaeology to xenology and zoology, including most of the 'ologies' in between.

Born on the planet Rhylanor, he entered the Rhylanor Institute of Technology at the age of eighteen, eventually receiving advanced degrees in computer science and robotics. He went on to serve three terms as Dean of the School of Robotic Science at RIT, after which he was appointed to the Graz Redniz Chair of Computational Robotics, a prestigious and coveted position. He is the author of 12 holocrystal publications and over 100 articles in technical and scientific journals, in addition to holding more than 250 Imperial military patents for his inventions and robotics work. Despite his academic success, he has become bored with what he has been doing, and realizing his age, he has taken an extended sabbatical from teaching in order to make forays through the Deneb Sector.

Among his many pursuits, Dr. Krenstein has aided the Scouts in developing robots for planetary surface surveys. During a test in 1090 on Pannet/Rhylanor, members of a disgruntled anti-technist group kidnapped Dr. Krenstein and threatened to kill him if the Scout service didn't meet their demands. A young scout named Dur Telemon was part of the all-volunteer raiding team that finally freed Dr. Krenstein; in fact, Dur was the first to reach the Doctor.

After this incident, the Doctor constructed his servant, bodyguard, and experiment in synaptic learning, 'Aybee'.

Dr. Krenstein has been travelling with Dur Telemon and Akidda Laagiir since their chance meeting four years ago.

Role-Playing Notes: Dr. Krenstein, the "Mr. Fix-it" of the group, contributes valuable analytical skills. Together with Aybee, the doctor may contribute unusual insights Dur or even Akidda might otherwise overlook.

The doctor is slightly mischievous in the manner in which he conceals Aybee's true robotic nature—a source of much fun if role-played completely. The doctor seeks new experiences and knowledge for both he and his robot, so he will pursue adventure suggestions readily.

Keep the doctor's age in mind—he is the least able of the group physically, although Aybee helps to make up for this.

AYBEE WAN OWEN

Position: Personal servant and protégé of Dr. Krenstein.

AB-101, or "Aybee", is a pseudobiological robot designed and constructed by Dr. Krenstein. Aybee's apparent UPP is what Dr. Krenstein wishes Aybee to project to others based upon his programming (he is actually capable of much greater values); his intelligence and education are estimated from his computer hardware and software; and his social class is based upon his position with Dr. Krenstein.

Although Aybee's programming gives him certain basic abilities, he lacks true artificial intelligence and thus can make errors in judgment; in abstract situations, this effectively lowers his true skill level. Aybee's 'weapon' is a light laser welder, built into his right arm. Many Imperial worlds specify standards for robot-installed weapons, and Dr. Krenstein has designed Aybee so that his arm (ostensibly used only as a tool) can pass inspection by officials, since laser welders are generally not restricted by local law levels; however, voice override controls allow Dr. Krenstein to use Aybee as a weapon at short range.

Role-Playing Notes: Without a doubt, Aybee is the most unusual of the quartet. He is also the most difficult to role-play effectively.

Aybee is the most valuable piece of equipment the group has. He can record situations in 3-D holograph form (10 minutes' worth, after which it is relegated to 2-D storage), then play them back for future study at the group's leisure. He will quietly observe a situation and report his findings to the doctor, keeping the doctor's safety as his priority.

Aybee is a good source of logical analysis, although his conclusions are devoid of any creativity or revelations beyond the obvious (although sometimes the obvious can seem like a revelation.) Play him as a naïve, knowledge-hungry character. He should make errors in judgment when a situation relies heavily on intuition. He is likely to miss subtle innuendos that humans are so prone to use.

Strangers who find out that Aybee is a robot may react negatively (increase the difficulty of any interpersonal task one level). Most will never suspect from casual observation that Aybee is nothing but a machine.

To determine Aybee is a robot at close (1.5m) range:
Difficult, Robotics, Interview, 2 min

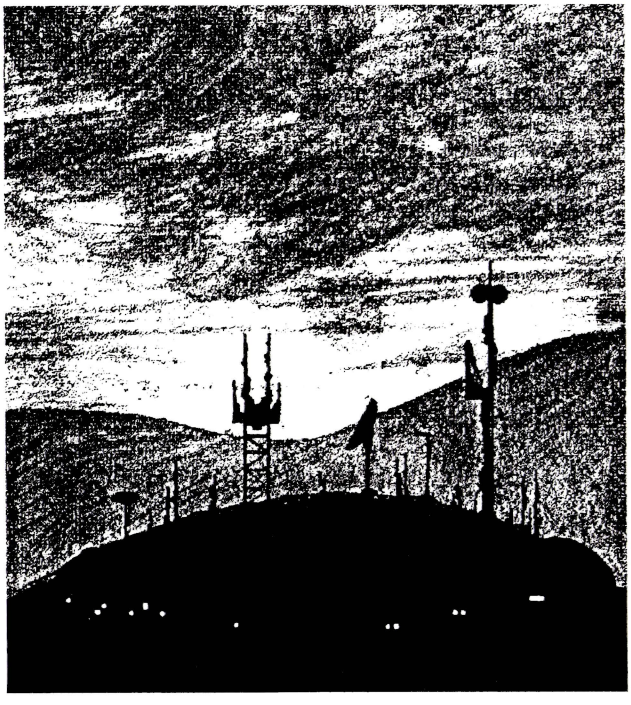
Referee: Roll once during the first encounter. Thereafter roll daily if the character constantly spends extended periods near Aybee. Otherwise, ignore this task.

Aybee's power plant is a closed hydrogen/open oxygen fuel cell. Aybee carries his own hydrogen supply, but the hydrogen is oxidized by oxygen from the air. Aybee is thus much like a true human in this respect—if he loses his oxygen supply, his power plant will not function. Air is "pulled" into his power plant by a respirator that moves his "rib cage" in a manner similar to human breathing action. Aybee's fuel cell operation produces a harmless waste by-product which must be eliminated from time to time: pure water.•

Life Underground

ADVENTURE NUMBER 12

—by Nancy and Robert Parker



INTRODUCTION

This Adventure deals with a *Travellers' Digest* journalist and his companions in their continuing tour of the Imperium. The group, in need of funds, has agreed to do some modifications to Scout Service computer equipment at the Scout base in the Inthran system, and to assist as crew in the Scout ship they are travelling on.

Chapters: This adventure is in several chapters, most of which are material to be read only by the referee.

The chapter "Working for a Living" introduces the players and the situation. This section may be used in one of two ways: either read it to the players, or have them each read their characters' parts. The idea in either case is to acquaint them with the characters and their personalities.

The chapter "Inthra and Altra" is library data available to the players.

Dates: All dates herein correspond to the Imperial calendar. The starting date of this adventure is 216-1105.

Place: This adventure starts on the Scout ship *Forward Flight* while en route to Inthra/Dethenes in Old Expanses Sector.

Playtested By: Craig Sweigart, Nona Sweigart, Art Hodgson, Gary Thomas.

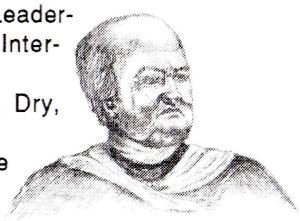
NON-PLAYER CHARACTERS

Mus Benel, Starport official
C77796 age 40 5 terms Rank 4

Brawling-2, Wheeled Vehicle-3, Computer-2, Leader-3, Hand Gun-1, Interrogation-2

Starport C, Small, Thin Atm, Dry, High Pop, High Law, High Stellar

Benel has had more contact with Scouts and other Imperials than most on his planet, though he is still cool toward them. He is a polished bureaucrat, nice enough but quite committed to his world's policies.

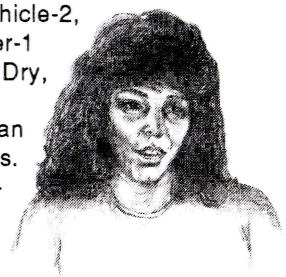


Enli Jebter, Head of Executive Council
7579AD age 41 4 terms

Wheeled Vehicle-1, Legal-3, Leader-2, Hand Gun-2, Carousing-2, Interrogation-2

Starport C, Small, Thin Atm, Dry, High Pop, High Law, High Stellar.

Jebter acts older than he is. He is very stubborn but not deaf to reason. His leadership in the council is due to canny manipulations. His colleagues recognize his expertise but may at times try to undermine him secretly.

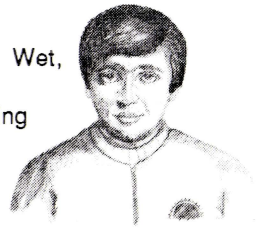


Ms. Mera Nallen, Rebel Leader
598AA6 age 38 4 terms ex-scientist (social standing in rebel society is B)

Leader-2, JOT-2, Tracked Vehicle-2, Electronics-4, Liaison-1, Computer-1

Starport C, Small, Thin Atm, Dry, High Pop, High Law, High Stellar.

Nallen is an intense person, an active recruiter of new dissidents. She will make every effort to convince the Scouts of the rightness of her cause. It doesn't hurt that she is also an attractive lady.

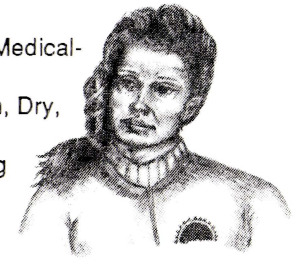


Mr. Elim Malkasson, Scout
6A8874 age 19 1 term

Grav Vehicle-2

Starport A, Small, Dense Atm, Wet, Low Pop, Low Law, High Stellar.

Malkasson is so delighted at being a Scout that he tries to recruit everyone in sight. He is good-tempered and outgoing. He is not very cool in an emergency, though.



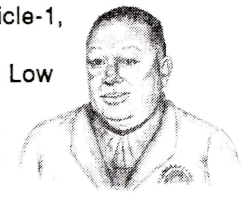
Capt. Rahel Manara, Scout
4968B7 age 35 4 terms

Navigation-2, Grav Vehicle-1, Medical-1, Sensor Operations-1, Pilot-3

Starport B, Small, Standard Atm, Dry, High Pop, Mod Law, High Stellar.

Capt. Manara is always looking for ways to do her job better. She and Krenstein understand each other perfectly.

Robert Kesev, Scout Base Commander
C63866 age 34 4 terms



Pilot-1, Ship's Boat-1, Grav Vehicle-1, Sensor Operations-3, Carousing-2

Starport A, Small, Thin Atm, Wet, Low Pop, Low Law, High Stellar.

Kesev is a jolly good fellow, very gentle for such a strong man, and a good leader for this lonely base.

WORKING FOR A LIVING

Scout Elim Malkasson examined the joint that Aybee had just finished laser welding.

"Nice work, Owen. You've worked as a welder before?"

"I haven't had a job as a welder, but I have learned to use the equipment." Not for the first time, Dr. Krenstein's careful programming allowed Aybee to give a truthful but unrevealing answer.

"You sure learn fast. I think you've mastered everything I've shown you."

"Thank you, Mr. Malkasson. I still feel like a beginner."

"No, I mean it, Owen, you're a bright boy. I hear you're fluent in Inthran just from studying the computer files. When do you sleep, man?"

"Not often." Aybee smiled.

"Fantastic. Ever considered joining the Scout Service?"

"No, I never have."

"It's just the kind of challenging life you need, with a brain like yours. I joined up four months ago and I'm having the time of my life. Why don't you try it out?"

Up on the bridge, Dur was explaining sensor equipment to Dr. Krenstein while Akidda studied navigation. Krenstein had gotten them this ride. He was to upgrade the Scout base computers at Inthra, a job expected to take three or four months. The Scout Service was transporting him and his friends there, and when the job was complete, they could travel six more jumps in any direction, riding Scout ships on a standby basis and living at Scout bases between times. Dur would be on active duty, and Akidda and Aybee could serve as scratch crew; that was part of the bargain. The deal included some cash as well.

"...so we can scan more accurately from the ground, but a wider area from orbit. It just depends on what we need to do, Doc." Dur was enjoying showing off his knowledge in front of Krenstein.

"That's interesting, Dur, but I'm curious. Wouldn't it be more useful if the densitometer could scan deeper? Many mineral resources are farther than one kilometer down."

"Sure, Doc, but this is top-of-the-line equipment. It doesn't come any more sensitive than this."

"No, I guess not, but if I remember what I've read, all one would have to do is give it more power," the doctor said.

"Won't work, Doc. All you'd do is blow out the circuits."

"Still, it seems to me—" Krenstein mused, looking down at the computer on his arm. "It wouldn't be too difficult, if I...," he trailed off, already deep in calculations. Dur shrugged and walked over to the captain.

"Let's try not to bother Doc for the rest of this jump," he whispered to her. "You guys might just get more than you bargained for."

The skipper gathered her crew together once the *Forward Flight* was out of jump space and in orbit around Inthra.

"Gentlemen, we have three air/rafts to deliver to Inthra," she began.

Malkasson nudged his new friend. "Air/rafts, she calls 'em. Did you see those rustbuckets back in the hold? They must have been built before my grandfather ever—"

"Mr. Malkasson, do you and Mr. Owen have a problem?" The captain frowned in their general direction.

"No, ma'am, I'm sorry, ma'am, but I couldn't help but notice the condition of the equipment you mentioned, ma'am." Scouts had no rank, but Malkasson knew well who was in charge on this mission.

"Your point is well taken, Mr. Malkasson. The relationship between the Imperial government and the Inthrans has always been a delicate one, with a great deal of resistance on the part of the locals. The subsector's liaison specialists back on Dethenes decided that it would be better not to flash the latest and greatest gadgets in front of them."

Dur looked suddenly concerned. "You don't mean the Inthrans are technophobic, do you, ma'am?"

"No, Mr. Telemon, nothing like that. It's just that, conditions on Inthra being what they are, it would be better for us not to flaunt any technological superiority we have over them. The government has always been standoffish in regards to us. Even lending them these rafts for a month is a first. We just don't want to take any chances.

"We'll send two people with each raft, plus a cutter to bring you all back here," the captain continued. "As you know, we have a small crew, so you'll all get to play a part in this. Mr. Telemon, you'll fly with Mr. Laagiir. Ms. Plennet and Mr. Slaymon, you'll take one, Mr. Malkasson will go with Mr. Owen, and Ms. Zarrom will pilot the cutter."

Aybee looked troubled. "Should I not be assisting Dr. Krenstein?" The captain blinked at being contradicted and seemed about to be annoyed.

Dur nudged Aybee to be quiet. "He's so deep in that computer he wouldn't hear you if you spoke, *Mr. Owen*. You go with Mr. Malkasson—the experience will be good for you. When a crew member, act as a crew member, you know." He gave Aybee a significant look.

After a moment's attempt to decipher that look, Aybee came to attention and saluted. Malkasson choked and Dur put his hand over his eyes.

"*Scout* crew, Aybee," Dur moaned.

The captain laughed. "I appreciate your willingness to serve on a Scout ship, Mr. Owen, but we in the field don't normally salute," she said. "If you have no further questions, gentlemen, we're nearing your departure point. Dismissed."

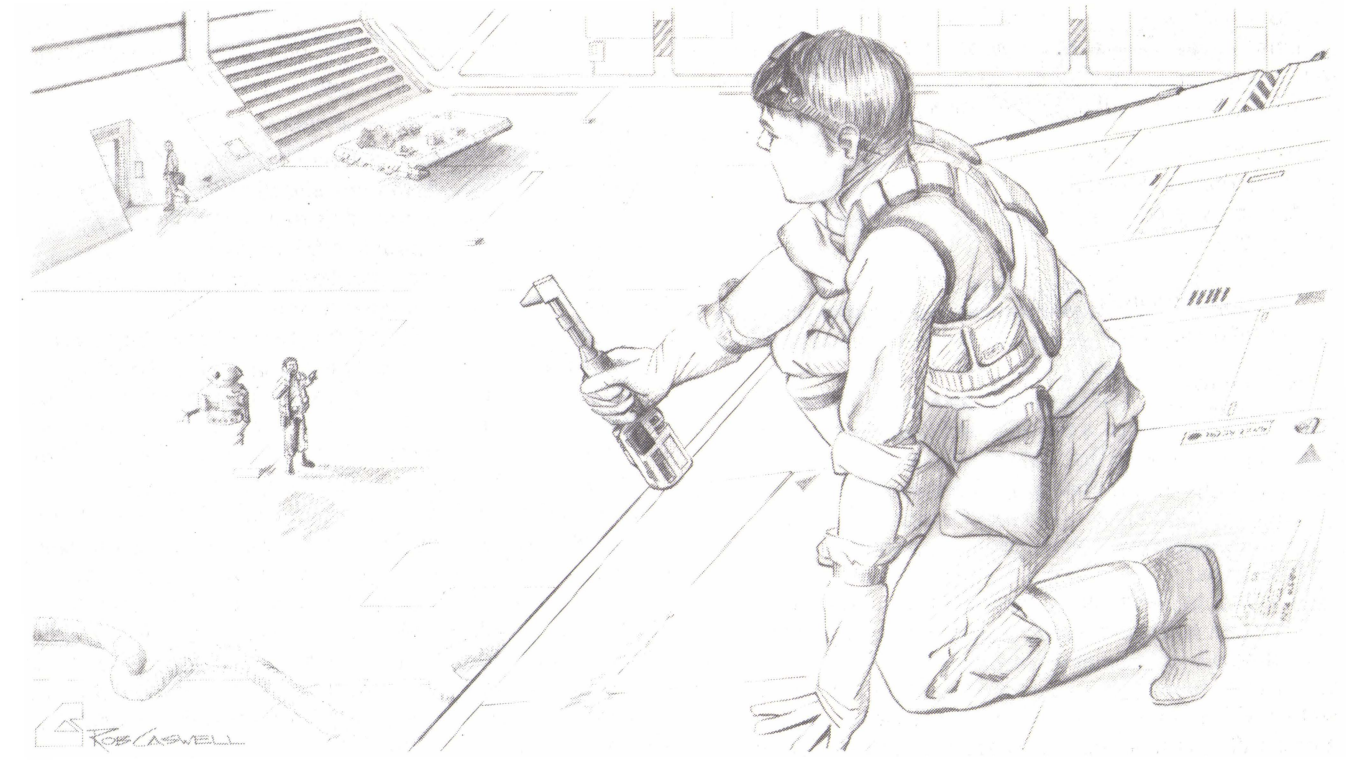
INTHRA AND ALTRA

Inthra/Dethenes (Old Expanses 0607 C422AD9-9)

TAS red zone, administered by Imperial Scout Service.

Inthra, loyal to the Imperium during the Solomani Rim War, lost much of its population in that war. The current religious government dates from the period just after the war.

The planetary religion is called Altra, which means "reward". The vast majority of the population belongs to the church. Non-members are treated as separate and are required to wear markings on their uniforms.



REFEREE'S SYNOPSIS

Serving as crew on a Scout supply run, en route to a "paying" job for Krenstein, three of our characters take a routine run planetside and are separated by a storm. Aybee finds himself, with other Scouts, meeting with a hidden group of Inthran dissidents. Inthran official policy is to keep technology under government control, and the planet is a TAS red zone at local request. The dissident miners are trying to refit an abandoned starport and open their own channel to interstellar trade: in short, they would balkanize the planet. So where does justice lie? And what does justice have to do with diplomacy?

Krenstein, meanwhile, is upgrading the survey computers of the ship and must finish this task before the sensors will be capable of locating the missing landing party.

KRENSTEIN'S PROJECT

Before the other characters start down to the planet, Krenstein has the captain's permission to attempt the upgrade he has invented. The upgrade would allow the densitometer to operate at higher power without damage, giving the sensor a penetration of 10 km instead of one. This will permit sea floor surveys from orbit, as well as deep resource surveys and examination of incipient volcanic action.

The steps in the project are these:

To construct a new power rectifier for the densitometer:
Formidable, avg(Computer, Electron), avg(Int, Dex), 1 hr
Referee: This is formidable, or it would have been accomplished long ago, but Krenstein started a week ago, when the *Forward Flight* entered jump space on its way to Inthra.

To partially disassemble the sensor:
Routine, Electronics, Dex, 5 min

To insert the power rectifier and reassemble:
Routine, Electronics, Dex, 10 min.

To reprogram the computer to interpret new data quality:
Difficult, Computer, Int, 30 min (uncertain)

To test the new function:
Routine, sensor op, ed, 1 min
Referee: One of the Scout crew on board the *Flight* shoud do this.

To debug, if necessary:
Difficult, Computer, Int, 10 min (uncertain)
Referee: Whether this task is necessary or not depends on the result of the uncertain reprogramming task above.

THE SOUTH POLAR CITY

The air/rafts are for delivery to the south polar regional spaceport. The Scout base is orbital but Scouts have occasional contact with the local leaders. The locals have not specified why they want the air/rafts.

From day to night, the temperature on Inthra changes 170° C. The sharpest changes occur at sunset and sunrise. Large amounts of water boil away in the day only to precipitate as the air cools during the night, causing violent storms even in the thin atmosphere. This forces the locals to live underground in carefully conditioned buildings.

The air/rafts will land in a relatively calm part of the night, when the temperature is about -70°. The crews will be wearing tech 15 vacc suit uniforms. The rafts are tech 12 models, suitable for loaning to locals who are leery of high-tech items. Emergency equipment and supplies are stored on board. Only built-in tech 12 survey equipment is on board.

The Scouts plan to play it safe and home in on a landing beacon. They are not counting on a solar storm, though.

Load the characters and Scouts as planned, and when well into the atmosphere, give the pilots a task for piloting in the storm. Aybee's player can roll for his Scout companion; Dur is probably piloting his craft. The referee should roll for the NPCs piloting the other two vehicles.

Scout NPCs for other vehicles:

Ms. Sela Plennet 83A8A7, age 27, 2 terms
Pilot-1, Grav Vehicle-2, Electronics-1, Medical-1
Mr. Dra Slaymon 667789, age 32, 3 terms
Ship's Boat-2, Pilot-1, Computer-2, Sensor Operations-2
Ms. Lasic Zarrom 4968B7, age 25, 1 term (cutter pilot)
Pilot-1, Computer-1, Liaison-1

To pilot an air/raft safely in storm:
Difficult, Grav Vehicle, Dex, 5 min

To home in on a landing beacon:
Routine, Vehicle, Int, 30 sec (uncertain)
Referee: Make "secret" die rolls behind your screen, but in this case the outcome is already decided.

Implement mishaps as necessary: the storm worsens steadily as the characters progress. (Just don't kill any player characters.)

When the vehicles have landed, supply Aybee's player privately with a notecard telling what Aybee sees. Just as Aybee's raft was landing, the beacon they were following cut out. They see a disused starport, with a few of the pads looking recently repaired. Not much shows far above ground level except the beacon tower. They are perhaps 30 meters from the nearest mound indicating an underground building. No people are immediately evident, but some light construction equipment is there, anchored against the wind. The cutter comes down close by them.(Optionally, the cutter could be completely lost if rolls were bad.)

Dur and Akidda and the other two Scouts, meanwhile, land at the correct starport. Their ships are lowered into underground hangars, where they are greeted by local starport officials asking, "Where is the third air/raft?" The third air/raft and the cutter are nowhere to be seen.

In the current solar storm, ordinary radio is worthless. Attempts to contact one another yield only static. Messages to the ship are only somewhat clearer due to the more powerful starport radios. Meson communications are too far advanced for Inthra. However, point-to-point communication on-planet is by wire or fiberoptics, so is unaffected.

DECISIONS, DECISIONS

People soon approach the missing cutter and air/raft from the seemingly deserted building, wearing safety lines and carrying cables to secure the vehicles. They urgently gesture the Scouts and Aybee to come into the buildings with them. The blizzard is growing steadily worse. If the Scouts refuse this assistance or try to take off at any time, the air/raft will immediately be swept against the cutter, rendering both inoperable and knocking the Scouts unconscious. (If the cutter has been lost in the earlier die rolls, then the air/raft will be swept against one of the buildings or a rock outcropping in the port area.) If they stay on the ground, the vehicles are soon damaged by flying gravel, losing heat and air pressure. (If flying, the vehicles can be flung about and crash into ground or buildings, while on the ground the wind cannot move them far.) If they accept the invitation to get inside, they will be taken inside and the vehicles will be secured and removed to one of the hangars.

DISSIDENCE, DISSIDENTS

When the characters do leave their vessels, they find themselves in an unforeseen situation. There are dissidents to the major culture, dissidents who want to make their own contact with people offplanet and become a separate nation. Nobody has mentioned this to the Scouts before, principally because nobody knew.

These Scouts have found the hidden city of the dissidents, Selwic, before it was ready to be found. Accordingly, they are asked either to cooperate in announcing this new nation to other planets, or to keep silent about where they have been. The dissidents will not contact anyone until they have a pledge of cooperation, one way or the other.

As a recent Scout recruit, Malkasson is not going to be much help except in reciting regulations he learned in training. Aybee knows what emphasis various cultures put on giving one's word. Though he is legally Dr. Krenstein's agent and cannot be held responsible for his own actions, he cannot allow anyone to know this. He will have to make some kind of decision, possibly based on his prediction of Krenstein's reaction. (He has 15 years of data to judge by, after all!)

Information that the dissidents can give:

The people of this persuasion have gathered in one underground metropolis, which was left as a memorial to those who died in the war 100 years ago. Travel corridors leading to other Inthran cities were sealed, so no one comes there anyway. The dissidents can communicate with other parts of the planet but have not done so since they came here. Their self-sufficient city could remain sealed off indefinitely.

Three million people live here. This is negligible on a world of ten billion inhabitants, but a respectable small country on any other world. Most engineered some sort of disappearance or faked a death to leave no trace of where they had gone. This has been going on for forty years; there has been a large increase in population from births as well.

They have elected their own local government. In *Grand Census* terms, the colony has the following characteristics:

Progressive, enterprising, unaggressive, neutral, harmonious, friendly.
Executive: One ruler
Legislative: Elite council
Judicial: Demos (elected judges, juries of citizens)
Uniform law. Overall 5, weapons 5, trade 4, criminal 7, civil 7, personal freedom 3.

The inhabitants of Selwic would strongly prefer a peaceful secession. Nor do they want to antagonize the Scout Service or the Imperium in general, since the dissidents wish to establish trade off-planet. This is why they are working on the starport. The beacon was being tested when the Scouts arrived; there was no intention of luring anyone here.

The major objection of Inthra's ruling council to free offworld trade is their fear of being inundated with new technology, which they associate with the disaster of the Solomani Rim War.

WAR HISTORY

Before the Solomani Rim War (990-1002), the planet boasted a population of over 15 billion. The world's mining industry spawned an industry in heavy equipment, and a weapons industry spun off from that. This industry specialized in heavy military equipment used for reducing planetary defenses in hostile environments. Inthra remained loyal to the Imperium, and was a supply source for the Imperial armies planning an invasion of Terra.

In a little known operation by Solomani commandos, the productive capacity of Inthra was destroyed. The planet had concentrated its environmental controls into relatively few central areas, along with development laboratories.

In a few short hours, massive casualties amounting to many billions were inflicted as the commandos shut down environmental controls. The government regained control, and no commandos are known to have escaped, but Inthra was removed as a source of supply to Imperial forces.

Applicable Scout polices and regulations:

Scouts cannot take sides in local disputes.

On balkanized planets, it is common to establish relations with all countries possessing spaceport facilities and a peaceable attitude.

It is not permissible for Scouts to aid a rebellion or to recognize a rebel government if hostilities are in progress.

Trade with rebels is permissible for Imperial citizens, as is support, including military aid or mercenary service.

The Imperium protects free trade between all worlds.

MEANWHILE, BACK AT THE RANCH

Dur and Akidda can consult with Krenstein and the ship's captain (through bursts of static) about locating the 2 missing craft. Krenstein may still have the sensors off-line.

Of course, the ship could use the orbital base's sensors; unfortunately the base is at far orbit distance. The resolution of 10 km would do them no good at all. No small craft searches will be possible until the weather settles, and EMS will not work either. The densitometer could locate the craft with a lengthy search from close orbit (regional range). NAS won't help.

The base has five air/rafts. When the storm dies, Dur and Akidda could go up to the ship or base to aid in the search, or set out from the port if a ground search is ordered.

To conduct a densitometer scan:
Routine, sensor operations, Edu, 10 sec (uncertain) (each square km.)

To conduct an active EMS scan:
Routine, sensor operations, Edu, 1 sec (uncertain)

Tasks for ground search, area by area (two-man vehicles, one pilot or driver, one sensor operator or visual searcher):

To fly/drive a grid pattern:
Routine or Difficult, Vehicle, Dex, 10 min, (weather dependent).

To conduct a densitometer scan:
Routine, Sensor operations, Edu, 2 min (uncertain)

To conduct a visual scan:
Difficult, Unskilled, Endurance, 2 min (uncertain)

Local officials will be eager to help find the missing Scouts. They normally pay very little attention to the area outside their conditioned cities and have no sensors that might help. Their instruments predict a duration of 10 hours for the current solar storm which is blinding sensors, but by that time the usual dawn disturbances will make flying difficult again. By midmorning flying weather should be good. The Scouts and officials can send messages to surrounding cities to organize a ground search. These messages will also go to the rebel city simply because the communications network is all one system, but rebels don't answer and no answer is expected from the "memorial" city.

GETTING IT ALL TOGETHER

Eventually, the weather will permit the searchers to locate the craft, or the Scouts and Aybee will lift off again and radio their whereabouts. The latter is distinctly preferable if they have agreed to keep quiet about having met with the rebels. Once back at the base, though, a full report will be required.

If they did not accept rebel hospitality, they will nonetheless report having met people at this unauthorized beacon site, which the base commander knows to be uninhabited. An investigating party from the base (including the characters) could meet the rebels for the first time. This could be handled much like a "first contact" situation by the Scouts.

If inquiries were made of the local authorities before investigating, though, both locals and Scouts might investigate at the same time. This would make diplomacy imperative to prevent a violent reaction against the rebels.

The Scout commander will have to decide his policy. Our characters, though serving as scratch "Scouts", are not bound by service regulations in their behavior. They could attempt to influence local officals to allow a peaceful secession, with guarantees that no technology will be "dumped" outside the new nation. They could notify Imperial officials by Xboat messages and even back the request for separate trade relations with what little influence they have, while keeping the matter secret from the planetary government. They could ignore the whole affair and let the Scouts handle it. They could report the matter to local officials and watch the fur fly (thereby breaking Aybee's agreement.)

How would Akidda like to write a story on the birth of a nation? His skills would be very useful in dealing with the government leaders to convince them. If he meets with them, the head of the executive council is Enli Jebter (on the NPC page). Theoretically, one must convince the entire council.

To persuade the council to let the dissidents alone:
Difficult, Persuasion or Interview, Int, 10 min

The simplest option is for the Scout Service to publish a survey update recognizing this planet as balkanized and Selwic as a safe port. They would need to notify the TAS of this. Then the Inthran officials could be informed of a *fait accompli.*

If Krenstein's upgrade is successful, he is likely to earn further free passages by implementing the same innovation to other Scout ships during the group's travels.•

INTHRA PLANETARY INFORMATION

GRAND SURVEY WORLD PROFILE

World Name:	Inthra/Dethenes
Location:	Old Expanses 0607
UPP:	C422AD9-9

Physical Data:

Diameter:	6,454 km
Density:	1.02
Mass:	0.127
Surface gravity:	0.508 g
Rotation period:	39 hours
Orbital period:	1150.8 standard days
Seasons:	Day by day changes
Axial tilt:	14°
Orbital Eccentricity:	0.02
Satellites:	Veller (17 radii, C2002D-9)
Surface Atm Pressure:	0.14 standard atm
Atm Composition:	std mix/sulfur compnds
Atm Terraforming:	No
Hyd Percentage:	20%
Hyd Composition:	Water/sulfur contamnts
Hyd Terraforming:	No

***Temperature*:**

Base surf temperature:	52°C
Axial tilt modifiers:	+8.4°C, -14°C
Rotation modifiers:	+67°C, -104°C
Latitude modifiers:	±5°C per hex row
Orbital eccentricity:	±0.6°C
Weather control:	yes
Grnhouse Terraforming:	No
Albedo Terraforming:	No

Mapping Data:

Nbr of tectonic plates:	1
Native life:	No
Terrain terraforming:	Yes
Oceans:	4 minor seas, 3 lakes

Seismic Data:

Stress factor:	3.3
Notable Volcanoes:	None

Resources:

Natural resources:	Ores, Crystals, Gems
Processed resources:	None
Manufactured products:	Weapons, Hvy Equipment

Population and Ports:

World population:	10,730,000,000
Primary city:	Altra, 6 billion; Class C
Secondary Cities:	27, circa 500,000,000
Tertiary Cities:	273, circa 50,000,000

GRAND CENSUS CULTURAL PROFILE

World Name:	Inthra/Dethenes
Location:	Old Expanses 0607
UPP:	C422AD9-9

Cultural Profile:

Progressiveness-Att:	Conservative
Progressiveness-Act:	Advancing
Aggresiveness-Att:	Unaggressive
Aggressiveness-Act:	Neutral
Global Extent:	Harmonious
Interstellar Extent:	Aloof

Technology Profile:

High Common:	9
Low Common:	8
Energy:	9
Computers:	9
Communications:	7
Medical:	9
Environment:	10
Land Transport:	9
Water Transport:	9
Air Transport:	9
Space Transport:	9
Personal Weapons:	9
Heavy Weapons:	10
Novelty:	15
Prewar Tech Level:	11

Government Type: The government of Inthra parallels the organization of the Altran Church, which groups believers by steps of piety and organizes the devout into councils or committees to handle various aspects of church and community life. It is heresy to indicate any dissension in an executive council. They are viewed as one person. All their rulings are defined as unanimous.

It was during the time of attempted rebuilding, after the Solomani Rim War, that the current religion, named Altra, gained the adherence of most of the population. It provided offers of an afterlife to people recently shocked by the grim realities of mass death. The northern arctic area, least hit by the war, but at the same time having the greatest number of survivors mourning their losses, was renamed after the religion to provide a center for the recovery.

People wear uniforms indicating their rank in the church (if any) and their job. The police and high church officials are distinguished by being allowed individualism in their choice of clothing. In a confrontation, the citizens are the ones in uniform and police are the ones gaudily dressed.

Inthra was first settled before the Long Night, apparently as a mining colony. The isolation of the planet during the Long Night resulted in development of various means of food production within habitats. Clusters of communities thrived in the area of the north and south arctic regions.

Post rim-war emphasis on redevelopment of environmental controls has resulted in a higher level of environmental technology than of other types of technology. Prototypes of local devices will generally be in this category. Pre-war devices exist, but the locals have capability only to maintain them and sometimes not too well.

Inside Information

A MEGATRAVELLER SCENARIO

—by William W. Connors

ADVENTURE OVERVIEW

This adventure is designed for use with the **MegaTraveller** game system. As such, some of the material in it will not mesh with the traditional rules of "classic" **Traveller**. Adaptation should not be too difficult, however, and referees who do not yet own a copy of **MegaTraveller** should be able to run it with only slight modifications.

In short, the scenario that follows details the actions of Dayne Braage, a bureaucrat in the Imperial government who learns, via military Xboat routes, of the assassination of Emperor Strephon and the fragmentation of the Imperial Core. These routes average a somewhat higher rate of travel than the standard Xboat system normally depicted on **Traveller** maps. Therefore, Dayne Braage has a vital piece of information which very few others on his world possess—that the Imperium is in a whole lot of trouble .

Although Imperial laws forbid the use of such information for only official business, he decides to use this knowledge to attempt to make it back to his homeworld before he is trapped On Divad by the rapidly dawning war. In addition to this, his desire to leave the world is fueled by his belief that the natives, a violent race known as the Brinn, will revolt as soon as they learn of the shattering of the Imperial government.

Unfortunately, things do not go as he has planned and the player characters quickly find themselves trying to get off of Divad as the natives attempt the genocidal slaughter of all human life on the planet.

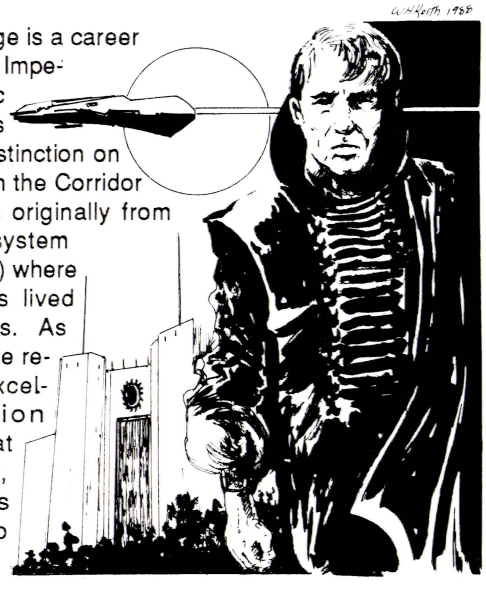
DAYNE BRAAGE

Bureaucrat Director

5567B7 Age 50 8 terms Cr18,000,000

Liaison-5, Computer-3, Administration-2, Broker-2, Recruiting -1, Handgun-1, Brawling-1, Leader-1, Wheeled Vehicle-1, Interrogation-1

Starport B, Medium, Standard, Wet World, Mod Pop, Mod Law, Pre-Stellar



Dayne Braage is a career member of the Imperial Diplomatic Corps who has served with distinction on many worlds in the Corridor sector. He is originally from the Rill/Atu'l system (Corridor 1923) where his family has lived for generations. As a youth, Braage received an excellent education there and, at the age of 18, he left his homeworld to pursue

a career with the Imperial government.

He quickly found a position with the administrative wing of the Imperial Diplomatic Corps as a clerk at the Empire's facilities in the nation of Eshlepur on Kanorb (Corridor 2733).

When a neighboring country began to stage terrorist attacks on Imperial facilities, Braage found himself caught in the middle. While on a tour of some local industrial sites in a remote area of Eshlepur, he and his superior were taken hostage during a guerrilla raid. Braage's quick thinking and skills as a liaison not only resolved the hostage situation, but also did a great deal toward smoothing relations between the two countries. Less than a decade later, further diplomatic efforts brought a series of solid agreements between them.

Braage was transferred to many worlds around Corridor Sector and, in each case, his skills at getting people to work together and his understanding of the Imperial bureaucracy enabled him to advance in the Corps.

At the age of 30, he had attained a position in the administration division of the Imperial medical facility on Kiran in the Ian subsector. Braage's work there proved to be of tremendous benefit to the operation of the station and greatly increased its already outstanding reputation. When he left six years later, Braage had ascended to the rank of Executive and was looking forward to a career as the Director of some important Imperial installation and an early retirement back on his homeworld of Rill.

His luck was destined for a sudden reversal, however, when his superiors assigned him to the planet Divad in the Sinta subsector. Here he was placed under the authority of an arrogant and self-centered military governor who exploited Braage's skills without recognition or compensation. Braage was determined not to allow this setback to damage his service record and vowed to continue on in his new post until he was able to advance into the Director's position that he so desired.

Braage's role on Divad was to assist the locals in the development of a self-ruling government to replace the Imperial military leaders that had controlled them since their integration into the Third Imperium. Unfortunately, as the military government was reluctant to hand over control to the native Brinn, he was constantly confronted with artificial obstacles to his success. Without such hindrances, Braage was sure that he could craft the often violent and hostile Brinn into a society of loyal Imperial subjects.

Recently, a pressure leak in the quarters of Braage's supervisor and the resulting conflagration catapulted him into the leadership position which he had so long desired. Although the military was still certain to offer resistance, as the Director of the self-rule program, he was certain that he could overcome them and succeed in his assignment.

It seems, however, that the changes have come too late. As a high ranking member of the Imperial staff on Divad, Braage has had access to many of the military communications which come and go along the military Xboat routes. When a naval courier brought word of the recent assassination of Emperor Strephon, Braage was alarmed. The dedication of recent members of the Alkhalikoi dynasty to peaceful development of formerly hostile member states was outstanding, and he feared that a new ruler might not continue the traditions established by his predecessors.

When word arrived shortly thereafter of spreading violence and a conflict over the Iridium Throne, Braage began to think over the trends which seemed to be developing. After careful examination of the facts, and some hours of speculative thought, he reached a conclusion. The reign of the Third Imperium was, for all intents and purposes, at an end.

With the collapse of the Imperium, there would be no chance for him to guide the population of Divad to a more temperate and peaceful society. In fact, he reflected, there could be only one result when the Brinn learned of the assassination and spreading unrest: revolution. Bearing in mind the nature of past Brinn wars against humaniti, Braage quickly decided that he wanted no part of a possible uprising.

BRAAGE'S PLANS

Braage is a very educated man with a great deal of experience in understanding the behavior of large groups of people. He has deduced, from both existing facts and logical speculation, that the winds of change are about to sweep across the Third Imperium. It is quite possible, in his opinion, that the final chapter of Cleon Zhunastu's great works is about to be written.

This, in addition to the fact that he feels greatly cheated by what has transpired in his recent career, has left him a very desperate man. All of the years which he has dedicated to the service of the Emperor have come to naught and he views the current situation as one in which every man must be for himself. With that in mind, he wishes to take action to secure his own health and well-being as the rapidly approaching storm ravages the Imperium.

His own homeworld, Rill/Atu'l, is not accessible from this side of the Great Rift, but it seems to him to be a perfect place to spend the upcoming war years. Too isolated to be of military or economic value, it will fall out of touch with the Imperium and be left to itself. Certainly, times will be hard there, but not nearly so bad as they will be in the rest of the Imperium.

Getting home, however, seems to be something of a problem. He will have to abandon his position with the Imperial government and seek private transportation out of Corridor Sector, through Vland Sector and then back into Corridor coreward of the Rift before he can make the jump to Rill. All the while, he will have to confront the rapidly changing military and political situations which are sprouting about the Imperium.

Braage is not a weak man and the challenges ahead do not daunt him. He is worried, and somewhat afraid, but he is determined to succeed. In order to undertake his voyage however, he must move quickly. In less than a week, news of the assassination and the brewing turmoil at the core will be made public by the civilian news services.

In order to fund his trek, Braage knows that he will need a large amount of capital. As quickly as he can, he begins to convert his holdings in local and foreign companies into cash and the cash into items of high intrinsic value such as jewels and precious metals.

Acting upon information obtained via the Imperium's military communications network in this manner (i.e., for personal profit) is quite illegal. Braage is well aware of this, and

has taken steps to avoid detection. Braage is very skilled in dealing with people (liaison-5) and has a good deal of experience in the stock market (broker-2), so it is unlikely that his work will be uncovered without a direct investigation.

Once the liquidation of his assets has begun, Braage takes action to secure a starship for the first leg of his journey. If possible, he will try to engage a ship for the entire trip, but this will depend on the capabilities of the charter and her crew.

PLAYER INTRODUCTION

The characters are assumed to begin this adventure on the planet Divad in the Sinta subsector of Corridor sector.

They have completed whatever business has brought them to this world, be it legal or otherwise, and are now making preparations to leave the system. They are undergoing normal pre-departure procedures (such as looking for cargo or passengers) when a potential client introduces himself at a bar often frequented by spacers at the Imperial Complex.

The client identifies himself as a member of some importance in the Imperial government of Divad and asks that the characters promise to pursue the question of his identity no further before he will continue. Once he has attained assurances of this, he outlines the services which he requires.

In short, the client is looking for a starship to transport himself and a small amount of his personal effects off of Divad and into the neighboring Terragesh (Corridor 2338) star system where he can connect with the normal trade routes. He is willing to pay up to triple the normal charter price for a ship of the type operated by the characters, though he originally offers only the going rate and then haggles for all he is worth.

Once terms have been agreed upon, he goes into greater detail about his desires. He expects to have less than a ton of cargo, but insists that, as he has chartered the entire ship, no additional cargo or passengers be taken on.

The ship must be ready to lift off from Divad in four days (one day before the news of the assassination will be made public) and absolute secrecy is of the utmost importance. He will admit that laws are being bent, perhaps even broken, but that no one is coming to harm by his actions and that the group need not concern themselves with such matters.

PREPARATIONS

The characters are likely to make some efforts to look into the background of their client during the days prior to their departure just out of curiosity. If they do, it will not be too difficult to establish his true identity.

To establish their patron's identity:
Routine, Computer or Admin, Int, 10 minutes (Safe, Unskilled OK)

Once this is done, either by personal investigation or by computer queries, the characters can attempt to access the files on Director Braage and his history with the Imperial Diplomatic Corps. This is best done by a computer records sweep and can be performed at any terminal which is tied into the Imperial Complex's computer network.

To obtain background data on Director Braage:
Routine, Computer, Edu, 1 minute (Safe, Unskilled OK)

If successful, the characters can learn of Braage's excellent record with the Corps. They find a brief recounting of his adventure on Kanorb and a seemingly spotless career prior to his transfer to Divad. Once on this world, however, his rapid rise seems to have ground to a halt for no obvious reason. The recent death of his superior may, at first, seem to merit some degree of suspicion, but it quickly became obvious to all of the authorities involved that the event was an accident and in no way a homicide.

A more in-depth probe is possible, requiring more time and some degree of risk. The search requires that confidential files be broken into which may alert either the authorities or Director Braage in the event of a mishap.

To make an in-depth probe of Braage's files:
Difficult, Computer, Int, 10 minutes (fateful)
Referee: If the attempt to obtain information fails, Braage will be alerted to the goup's efforts. Although he cannot afford to risk losing the ship by direct confrontation, he will take steps to keep them out of the files in the future (i.e., they automatically fail at this task if tried again). He will not indicate that he knows what the characters have been up to, but will be very careful in future dealings with them.

If the computer search is successful, the characters discover that Director Braage has been quickly converting all of his assets into hard capital. He has purchased large amounts of jewelry, art, and precious metals under pseudonyms and has taken great care to avoid any direct connections between these transactions and his own affairs.

A CHANGE OF PLANS

On the day before their expected departure from Divad, word of the Imperial assassination reaches the characters.

A chartered freighter making a stop over in the Divad system has made the jump from Glenn (Corridor 2634) and beaten the next scheduled Xboat by at least 48 hours. Thus, despite his efforts to maintain secrecy until the last minute, news from the core forces Braage to act quickly.

Even as the first broadcasts of events at the palace are being sent across the communications networks of the Imperial Complexes in B'Rel'Lhas, T'Horis'An, and V'Hol'Dahl, Braage contacts the crew of his charter. He explains, in a rather emotional and almost frantic manner, that the ship must lift off ahead of schedule and that the group must come to help him with his personal belongings. If he is forced to haggle, he gives in fairly easily and grants a moderate increase in pay for the sudden change.

He gives the location of his apartment in the Complex, which the characters may already know if they have conducted a background search into their patron's true identity, and repeats his belief that they must move quickly. Travel to the bureaucrat's home takes about half an hour by the normal commuter transport tubes which connect the Imperial Complex's various sections.

INTO THE FIRE

As the characters are en route to their rendezvous with the waiting Braage, his reasons for concern become obvious. The Brinn guerrillas have seen this time as a perfect chance for them to strike at the Imperial interests on Divad. As confusion and concern over the future of the Imperium

brings doubt to the minds of those in the Complexes, the terrorists stage a series of impromptu attacks.

Halfway to Braage's home, the sounds of distant explosions rumble the subterranean complex. Throughout the Imperial Complex lighting fades for a few seconds and the life support systems falter before the backups come online.

As they arrive at his living quarters, Braage greets the characters with obvious signs of relief. He tells them that news of the assassination and of Imperial unrest has reached the Brinn, and that they wish to drive the unwanted Imperial presence from their world. They *must* reach the starport and get offworld as soon as possible, he explains.

Braage's goods are stored in four large crates, each weighing 150 kilograms. He is armed, though not openly, with a small body pistol in a shoulder holster under his jacket. He is not wearing any form of armor and carries no extra ammunition for his weapon. Across his shoulder he has thrown a large black purse which contains roughly Cr500,000 worth of gems and an envelope containing the charter fee for the ship. He hands the latter over upon request with a polite smile.

As the characters are about to set out upon their return trip to the starport, a series of fierce explosions can be heard from nearby. The lighting flickers and winks off, to be replaced by a series of battery operated emergency systems. Another blast silences the constant background sounds of the complex's life support machinery.

ACROSS ENEMY LINES

With only emergency power operating in the Imperial complex, the group is effectively cut off from the starport. Normal transportation systems are inoperative until the energy systems are restored and all areas are sealed off by the automatic life support circuits.

As if that weren't bad enough, there is increasing evidence of nearby fighting, and the public communications channels are filled with voices urging the citizens of the Complex to remain calm during these minor disturbances (a bad sign by any measure!).

After consideration of various routes out of the living areas and into the starport, which is about two kilometers away, it becomes clear that the surface is the only possibility. An emergency service airlock is located in the section next to Braage's own domicile and there are lockers of vacc suits next to it which serve to outfit all of the characters.

In order to get into that section, however, the characters have to get through a secured environmental safety door (armor value 10). This can be accomplished in one of two ways : blowing it down or shorting out the locking mechanism so as to release the seal which holds it in place. Ordinarily, it would also be possible to order the Complex's master computer to open the door, but the computer is currently out of operation. As it is highly unlikely that the characters have the equipment required to overcome the obstacle by force, it is probable that they instead attempt the latter method.

To override the electronic lock:
Difficult, Electronics, Edu, 1 minute
Referee: Failure to override the locking mechanism on the first try does severe damage to the system. A second attempt is possible (subject to normal determination restrictions), but such an effort will jam the door securely in place if it fails, forcing the characters to find other means of getting past it.

Once they have attained access to the suit lockers and the airlock itself, the characters can begin gearing up for their journey across the hostile surface of Divad. As they are doing so, the sounds of fighting from neighboring areas of the Complex draw nearer and nearer.

As the last of the suits is secured, a demolition charge breaches the far wall of the chamber and a pair of Brinn rebels enters and opens fire on the party. The guerrillas are armed with native-built laser rifles and are wearing hostile environment suits (both tech level 9). Each of the attackers has a life force of 35 and thus can take 5 hits before going unconscious and 7 more before dying. Each is assumed to have a skill level of 1 with their weapons.

It should be noted that combat with the Brinn while inside the Imperial Complex presents some unusual hazards. The first and foremost of these, is the risk of combustion when the methane-hydrogen atmosphere contained in the Brinn vacc suits is released into the oxygen-nitrogen environment around them. Whenever a character scores a hit on one of the Brinn which defeats the armor value of the suit (6) there is a chance of explosion. Throw 11+ for an explosion to occur in such cases, applying a DM of +4 if the attack was made with explosives or energy weapons and a DM of +8 for high energy or incendiary rounds.

If one of the Brinn suits does rupture and ignite, the blast is equal in effect to that of a tech level 5 hand grenade (penetration 7, damage 8, danger space 3). Note that it is quite possible for one of the Brinn attackers to suffer a hit and have his suit explode which, in turn, detonates the suit worn by his companion. *C'est la guerre.*

Once the Brinn have been overcome, the characters may cycle through the airlock and into the outside world. In this case, the lock opens into an access way which holds a ladder leading some fifty meters up a shaft to the surface. As this is far too narrow for the Brinn to enter, they have given it little thought during the hasty preparations for their attack on the Imperial Complex.

AMID THE ENEMY

Individual referees are encouraged to draw up their own maps of the territory between the exit point of the shaft and the starport complex some 2,000 meters away. The terrain consists primarily of a Brinn town which has sprouted over the years to house those who work for or with the Imperials on a regular basis. It has never been a hotbed of rebel activity, though the current situation is sparking the release of pent-up emotions in a great many of the inhabitants.

The characters must use stealth and clever tactics to cross the distance to the starport. It is obvious to them, as they draw nearer, that a fierce battle is waging for control over the facility.

Referees should base the number of encounters and their nature during this trek on the composition of the character party. If they are large and well-armed, then a full-blown battle with the hostile natives is in order. If they are fewer in number, or only lightly equipped, make the encountered Brinn less deadly and less numerous.

In all cases, it is important to remember that the adventurers are in the same situation that their Brinn opponents were in when they entered the Imperial Complex. Now, the party's suits run the danger of detonation if they are breached by enemy fire. Use the procedure given in the last section to roll for such occurrences.

UNDER SIEGE

As the characters near the starport, the exact nature of the fighting there becomes clear to them. Most of the pressurized docking tubes which extend from the various terminals to provide easy access to landed starships have been destroyed or rendered inoperative by Brinn fire. Members of the Imperial Marine Corps are fighting a valiant, but clearly futile, battle to hold back the insurgent elements and allow members of Complex staff to reach transport offworld.

If the player characters are of significant military might, they may wish to lend a hand to the defenders. If so, this is quite against the wishes of Braage, who wants nothing more than to get off of this world with as much of his ill-gotten gains as possible. He insists that the crew do everything in their power to live up to their end of the charter agreement.

Rather than fight, though, it is far more probable that the characters once again seek to use stealth to enter the starport section of the Complex. This is not too hard to do, as access shafts similar to the one which they used to leave the living section are also to be found in this region of the city.

This time, the transition from one environment to the other does not go unnoticed, however. A group of Brinn solders (the exact number depends upon the characters' party) spots the adventurers while they are making ready to descend the ladder in the shaft. A firefight ensues, which the characters must win if they are to re-enter the Imperial Complex.

WAR NEWS

Once within the confines of the starport, the characters can obtain more detailed information about the Brinn uprising and the current military situation. The natives took arms against the Imperials within an hour of the first release of information about the assassination and the resulting unrest in the Core. It was always assumed that the Brinn resistance was far more widespread and deeply rooted than could be proven, and the suddenness of this uprising certainly supports that belief.

This suddenness, together with the attack's great ferocity, served to overwhelm many of the Complex's defenders before they could act to secure the facility. The terrorist's first attacks destroyed the main power generators and caused severe damage to the life support systems and to the starport's Scout base. A counterattack by the Imperial Marines drove back the insurgents briefly, allowing the military to retake the port area and secure a line to some of the nearer housing and office sections of the Complex.

As it became clear the Brinn civilian populace supported the guerrilla attack, the Imperials were forced to abandon all hope of a military victory without the use of extreme firepower and heavy civilian losses in the city. Instead, they worked to move the inhabitants of the Complex offworld.

As the military reclaimed the first areas taken by the Brinn, it became obvious the Brinn were using their traditional methods of warfare. Wherever humans were found, they were killed. There were never any signs of torture or cruelty on the recovered bodies, but similarly, no evidence of survivors or attempts to take prisoners was uncovered.

IMPRESSED

When the characters reach it, the starport section of the Imperial Complex is in bad shape. Many areas are sealed off due to environmental failures and battle damage, while others are filled beyond capacity with refugees trying to get passage offworld. Imperial military personnel have formed an evacuation control force and are trying to get as many of the survivors onto starships as they can.

Near the terminal areas of the port, the crowd thickens. Refugees are being slowly herded into the waiting craft through the few remaining boarding tubes. The characters will find it impossible to force their way further forward and it seems they are totally cut off from their own ship. Only by identifying themselves as the crew of a starship can they attract the attention of the military troops.

Once they have done this, however, things begin to move fast. The characters are instantly hustled forward and introduced to a young naval lieutenant who seems to be in charge. He asks for their identification and positions in the ship's crew. If more than one of the party has pilot or ship's boat skill, they are assigned to other craft. There is a desperate need for pilots now, as casualties from the initial Brinn attacks have left more functional ships than crews.

No matter how strongly the characters might protest, they will be ushered (possibly at gunpoint) to the craft to which they have been assigned.

Braage is allowed to join the characters aboard their starship (so long as they agree with his statement that he is a member of the crew). Much to his dismay, however, all of his goods (if any of the boxes have made it this far) must be

left behind. The military is allowing only 10 kilograms of personal effects per person, forcing Braage to bring only his shoulder bag. This is still full of valuables, but holds only a fraction of his total wealth.

The rest of the space aboard the party's ship is used to carry refugees. Again, this is a military order enforced by the troops in charge of the evacuation. Any ship's vehicles which are sealed and spaceworthy (for example, a cutter) will be dismounted and loaded with people; those which are not (like an air/raft) are removed and set aside to be abandoned. As soon as their hatches are sealed, the ships are ordered to lift off and rendezvous with other craft in orbit.

OUTWARD BOUND

The characters arrive in orbit (either together or in separate ships) and move to meet the evacuation fleet. The sight is not a pretty one. Most of the ships (including the player characters' own) have received some degree of battle damage from the fighting on the surface. Those that are armed are assigned to escort unarmed vessels in the event that Brinn spacecraft should attack them as they move to a jump position. Already, several such attacks have been reported, and many Brinn craft are moving toward Divad from other points in the system at high speeds.

Each armed vessel is assigned several unarmed ones to lead to safety. Craft which are not jump capable, like shuttles and pinnaces, are docked with large cargo ships which have ejected their freight to take on refugees. Characters who have been assigned to other craft are assumed to be aboard unarmed ones and may join the fleet assigned to their original ship.

Roughly an hour after the party has rendezvoused with the orbital fleet, they are given orders to head out and jump to Terragesh (Corridor 2338). Monitoring the surface-to-orbit communications channels makes it clear that the situation on the surface is deteriorating rapidly.

BATTLE ZONE

As the squadron of evacuation ships moves out to a safe jump distance, they detect a small group of Brinn craft moving in to intercept them. These are all light ships (the Brinn equivalent of seekers) which have joined the rebellion and are now serving as improvised warships. They do not respond to radio challenges, and it is quite clear that they have hostile intentions.

The number of craft in the Brinn fleet should depend on the size and firepower of the characters' ship. The referee should use his best judgment in selecting the number of attackers. The force should be large enough to challenge the characters, but not so massive as to overwhelm them. The characters need not destroy the attackers—just hold them off long enough to allow the other ships (and themselves, theoretically) to jump out of the system.

Each turn, one of the craft in the refugee fleet can attempt to jump out of system. Because of the situation, this requires a task roll on the part of the pilot.

To attain jump during the battle :
Difficult, Pilot, Dexterity, Instant, (fateful)

Referee: If a given ship attempts to jump and fails, it cannot do so again until all other ships in the fleet (except for the escort craft) have tried their luck. Mishaps may indicate a drive failure which, if severe enough, could make jumping out of the system at this time impossible for the ship in question and require that the escort ship remain with it (possibly risking further encounters with Brinn craft) while repairs are made.

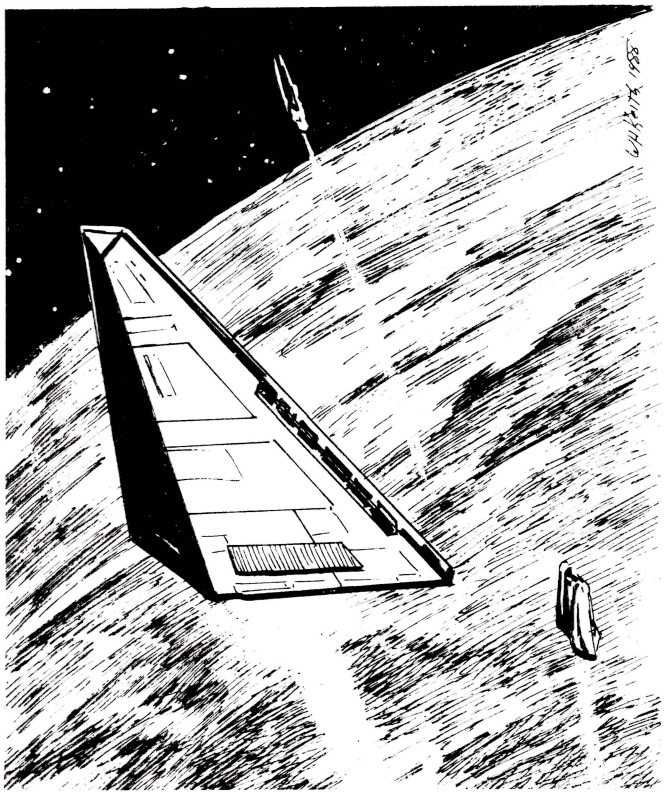
Once a given ship has attained jump, it and all the refugees aboard it are out of danger. Although life will not be pleasant for the next week, as the ships are *very* crowded, the humans will at least survive.

OPTIONS FOR HEROIC CHARACTERS

The above situations have routinely assumed that the characters are interested in escaping with their own skins intact. It is quite possible that characters will want to take on additional risks to aid in the evacuation of Divad. If this is the case, these risks should be encouraged by the referee.

For example, characters assigned to fly non-starships into orbit from the ground will dock at the waiting transports and offload their passengers. If they wish to, such characters are free to make a return trip to pick up additional refugees. This is quite risky, as the Brinn are clearly winning the battle for control of the port, but would also be very exciting for the players and referee alike.

Other possibilities might include doctors who remain behind to treat the wounded, military veterans who stay on Divad to "hold the fort", or even those who just "give up their seat that another might live". In all of these cases, the characters should be commended and given every chance to escape with their lives later (after one or two very close encounters with death). It is certain that government officials at Terragesh will hear of their valor and reward them with some sort of commendation.



The Brinn

AN ALIEN RACE FOR MEGATRAVELLER

—by William W. Connors

OVERVIEW

The Brinn are one of the most unusual races known to scientists of the Third Imperium: they are descended from carnivore/killer stock. Among the hundreds of sophont species known to humaniti, only a handful can lay claim to a similar heritage.

DESCRIPTION

Physically, the Brinn are a very large race, with adults massing an average of 1,250 kilograms each. In appearance, they look something like Terran crabs or spiders, but having ten limbs.

As in a spider, the limbs are angled upward as they leave the body and then turn back down toward the ground after the joint. The Brinn limbs are much thicker in proportion to the body than those of Terran arachnids. The six hindmost limbs are used for locomotion. Each of these ends in a strong set of six grasping claws. While useless in combat, they provide excellent traction on the rough terrain amid which the Brinn evolved.

The leading four limbs are manipulatory. The first pair of arms are slender and terminate in manipulatory hands, each of which is made up of four fingers and two thumbs. These are similar enough to human hands to permit the use of many pieces of human equipment without modification or unusual difficulty. The remnants of claws can still be found on the fingers and thumbs, but these serve no purpose.

The second set of limbs is heavier than the first and ends in a trio of sharp talons. In melee combat, these are the primary weapons of the Brinn. The talons are quite sharp and the great strength of the arms renders them deadly.

The body of a Brinn is not hard like that of a spider, but is covered with a tough, leathery, black skin. The brain is at the center of the body, surrounded by a protective bone case. Two major nerve stalks, known as the dorsal and ventral columns, leave the brain and run to clusters of sensory organs on the back and belly.

A large bump, known as the dorsal sense cluster, rises from the center of the back, and serves as the primary sensory organ. It has six eyes located around it which provide the Brinn with a full 360° field of vision. Brinn eyesight is far more sensitive to infrared radiation than that of the average human, but is very limited in the so-called "visible spectrum". In fact, Brinn are wholly unable to perceive many higher-frequency colors, such as green, blue, and violet.

Also located in the dorsal cluster is the intake for the Brinn respiratory system. Air is drawn in through an opening atop the cluster and into the creature's lungs. Here, the vital methane is extracted and passed into the blood stream for distribution about the body. Also, the dry air is filtered for any traces of liquid (mainly hydrogen cyanide) which the body needs to survive. In this manner, the Brinn are able to survive on a world with almost no hydrosphere.

Lastly, the dorsal cluster contains the Brinn's sense of smell. Air which is headed for the lungs passes along several membranes which sample it for trace elements in a manner not unlike that of a human olfactory system. The Brinn sense of smell, however, is not very acute.

On the underside of the Brinn is a smaller group of sensory organs, the ventral sense cluster. A small set of photosensitive spots encircles it, but these provide only a general sense of light and dark. In practice, the Brinn all but ignore the input from these "eyes".

Of far greater interest is the vibrational sensor, which makes up the outer surface of the cluster. While similar in some ways to a human ear, it is far less sensitive in the air. But when placed against the ground, it becomes an important sense organ. Except for the faint impressions of sound which the vibrational sensor can pick up, Brinn are deaf.

Prior to their evolution of intelligence, the Brinn hunted by hollowing out areas beneath the surface of the planet and waiting for prey to pass by. When the vibrations in the ground about them indicated that a creature was passing above their dwelling, they would spring out and strike in a manner which has been likened to that of a trap-door spider on Terra.

BRINN REPRODUCTION

Being methane breathers who find temperatures of -60° to be uncomfortably warm, the Brinn are not typical of the ranks of Imperial citizens. When one takes into account the fact that they have four sexes instead of the far more common two, they become even more unusual. Three of the four sexes are treated with complete equality in Brinn

society, which judges all of its adult citizens by their physical and mental fitness alone; the fourth sex consists of the young only and are given a status roughly equal to that of non-adults in most cultures.

Nulls, the first of the sexes, are actually just Brinn children who have not yet attained maturity. From birth until the age of about nine standard years, all Brinn are nulls. It is impossible to tell which sex a child will be when it matures until the change actually occurs. All nulls are dark grey in color.

As the young near what the Brinn call the "time of progression", they become lethargic and listless. At this point, they must decide which sex they will assume as adults. All evidence collected by Imperial scientists to date indicates that the change is totally up to the individual. Once the choice is made, the youth enters a state of hibernation which is very near death and the body begins to alter itself. After seven to 12 days, the changes are complete and the Brinn awakes as a fully mature adult.

Males, the second of the four sexes, are off-white or light grey in color. In reproduction, the males supply the sperm which fertilizes the eggs and allows them to begin growth.

Alpha-females (often called simply "alphas" or "alpha-fems") are the egg producers. They are black or dark grey in color and tend to be somewhat smaller that the other sexes, averaging only 1,200 kilograms in mass.

Beta-females (often called simply "betas" or "beta-fems") receive both the sperm and the egg from their mates and store them in their bodies until the eggs mature enough to survive on their own. This takes an average of three months. Once the egg can survive on its own, it is expelled from the beta's body and placed in a nursery area which provides incubation for all of the eggs in a given community. After another two and a half to three months, the egg hatches and the child is born. Betas are light grey on their dorsal surfaces, fading to black on the underside.

BACKGROUND

During the Vilani expansions which lead to the eventual founding of the First Imperium, explorers came across the Kateri system and its unusual natives. At that point, the Brinn had only just begun to mount a manned space program and reach out to the worlds around them.

Vilani traders opened negotiations and soon began to develop a mutually beneficial platform of exchanges and economic intercourse. When the Ziru Sirka (or "Grand Empire of Stars") was established in -4045, the Brinn were eager to accept membership.

With the help of the First Imperium, the Brinn quickly established a systemwide society that thrived on the exploitation of its asteroid belts and jovian worlds. Under the beneficent rule of the Vilani, the Brinn culture prospered and grew.

In -2207, shortly after the advent of the Rule of Man, things began to change for the Brinn. Their good relations with the Ziru Sirka government did not carry much weight when the Solomani took power. After a series of military exchanges, which went largely against the Brinn, the Kateri system fell. The Solomain quickly established a military government to keep the natives under control. Brinn culture began a stagnation that was to last for almost 3,000 years.

The next five centuries saw the rape of the Kateri system and the violent subjugation of its people. Almost without fail, the military rulers appointed by Terra were despots and tyrants. The few exceptions made no change in the deteriorating state of Brinn-human relations.

With the passing of the Rule of Man and the onset of the Long Night, the Brinn managed to drive humaniti from their system. Long forgotten was the kindness and co-operation which had existed between the Brinn and the First Imperium. Now, humaniti was remembered only as a race of sadistic slave masters and economic pirates.

As the Long Night ground on, the Brinn expanded their society and moved outward from their system. When the Terran dictators were driven out of the Kateri system, the Brinn captured much of their equipment and were able to assemble a formidable space fleet.

One by one, human settlements in neighboring systems were located and attacked. In a matter of years, the Brinn overran three nearby worlds and instituted a policy of genocide unmatched by any other known civilization.

Because the Brinn find the environment of the worlds on which mankind settles inhospitable, they rarely engaged in long and costly ground battles for control of a system. Once the defending space fleet of a human system was overcome, the Brinn simply began to bombard it from orbit.

The attacks were horrible and effective. Small asteroids were diverted to fall atop major cities and nuclear weapons were employed without concern for the ecological havoc which they would bring to the worlds. The Brinn did not wish to enslave the humans they found, only to destroy them.

For nearly a hundred years, the Brinn expanded outward. As they moved, they brought death to numerous human worlds and outposts. However, the endless warfare cost them heavily.

The starships which they had claimed from the fallen Second Imperium began to fail beyond repair. While the Brinn could maintain starships, they could not build them. Centuries later when Cleon Zhunastu began his campaigns to forge the Third Imperium, the human cultures around the Brinn had united against them and driven them back into their home system.

The Pacification Campaigns (76-120) forced the Brinn, via military actions, to join the Third Imperium. For the second time in their history, the Brinn found themselves under the hand of an unwelcome human government. Economic and political programs established under the rulership of the Lentuli dynasty were little more than vengeance for the Brinn's genocidal campaigns during the Long Night.

As the turmoil of the Civil War shook the foundations of Imperial control in the 600s, the Brinn attempted to throw off their human masters in a violent but unsuccessful rebellion. Although they did manage to reclaim their own system, they were unable to hold it against the subsequent counterstrikes which quickly decimated their makeshift war fleet.

When the Imperium regained control of Kateri less than a year later, it was found that the Brinn had once again embarked on a program of genocidal warfare against humaniti. Every single human being who had been trapped in the system when the Imperial troops were forced to withdraw had been slain by the Brinn.

After the fires of the Civil War had cooled, the Brinn were once again subject to retribution for their actions. Although

an official policy of Imperial Absolution was granted by Arbellatra for all military actions fought in the course of the Civil War, the Brinn were returned to a state of military rule and forced to accept unusually harsh socio-economic restrictions again.

Early on in the rule of Strephon, the Imperial Military Government of the Kateri system was ordered to assist the natives in the formation of a civilian government. After ten years of negotiations and political arbitration, the Brinn established a civil service bureaucracy to govern the planet.

Despite their new liberties, the Brinn are still almost wholly under the thumb of the Imperial Military. Every new ruling made by the government has to be cleared by the military before implementation, and the Brinn are forbidden to raise any form of military other than a local system police force.

THE BRINN HOMEWORLD

The Brinn homeworld, Divad, circles around the main sequence M5 star Kateri in the Corridor sector. By astronomical standards, it is a very unimpressive star and was not considered a likely candidate for life-bearing worlds prior to its exploration by Vilani scouts in -4576.

Kateri has an absolute bolometric magnitude of 10.2 and a luminosity of only 0.007, making it much fainter and weaker than Sol. It is roughly one-third the size and mass of Terra's star and has a surface temperature of only 2,800° K. There are five orbits about the star which are occupied.

The innermost orbit, at a distance of roughly 15 million kilometers (0.1 AU), is filled by an unusually dense ring of asteroids. When the Brinn first began to explore their system (less than fifty years before their first contact with humaniti) they found a treasure trove of ores in these rocks. To this day, a population of almost 35,000 prospectors works amid these mineral-rich planetoids.

The third and fourth orbits, at 0.32 and 0.48 AU, are occupied by jovian worlds similar to Assiniboia in the Regina system or Jupiter in the Terra system. The innermost of these two is 150,000 kilometers in diameter and has been named Kleslin in Galanglic. It has 11 major moons, five of which are currently home to various Brinn installations, and a pronounced ring of ice.

The outer of the two gas giants is Galidesh, and is only half the size of its sister world. It has only 6 major moons, two of which are occupied by the Brinn. Although Galidesh has its own ring system, it is much fainter and far less spectacular than that of Kleslin.

The farthest occupied orbit in the Kateri system is 0.72 AUs from the star. Like the inner most orbit, it is home to an asteroid belt. This one, unlike the first, is sparse and geologically average. It has seen some exploitation by the Brinn during their history, but is normally home to fewer than 5,000 prospectors at any given time.

In the second orbital position, at a distance of 0.2 AUs, is the Brinn homeworld, Divad. In human terms, a less hospitable world would be hard to find. If it were not for the need to oversee the native race, it is doubtful that the Imperium would ever established any form of colony or outpost here.

Divad is 13,120 kilometers in diameter with a rocky core. Its density is only 0.76, giving it a mass of 0.82 standard and a surface gravity of only 0.78 gees. Divad turns on its axis every 36.7 hours and circles Kateri every 12.28 local days (18.78 standard days). Divad's axial tilt is 16°, while its orbital eccentricity is 0.02. Divad has no moons.

The atmosphere which shrouds Divad is a mixture of hydrogen (70%) and methane (28%). The remaining 2% is made up of various elements which are non-toxic to the Brinn, but quite deadly to humans. The atmospheric pressure is 1.9 standard.

There is very little precipitation on the world and only 4.7% of the surface is covered by liquid. In almost all cases, this is hydrogen cyanide which, although vital to Brinn metabolism, is quickly lethal to humans (and most other oxygen-breathing races known to the Imperium).

Because Kateri is such a weak star, Divad is a cold world despite its close proximity. On the average, the surface temperature is almost -100° C. On the poles, this can fall to as low as -170°. Regions near the equator have been known to reach temperatures of -55° during the height of summer.

Unlike worlds with molten cores, Divad's crust is not broken into multiple tectonic plates. In fact, geologically it is quite stable and has been for a very long time.

HAZARDS OF DIVAD'S ENVIRONMENT

The climate on Divad is, to say the least, hostile to human inhabitants. In order to overcome the environment and make the presence of the military government practical, Imperial engineers have constructed a vast complex of self-contained structures on and below the surface of Divad. There are several things to consider when examining the hazards of human settlement on this world.

As the atmospheric pressure on Divad is greater (in most cases) than that found within human inhabited facilities, most leaks involve the contamination of a standard oxygen-nitrogen atmosphere inside by the methane-hydrogen mixture outside. On rare occasions, the opposite exchange occurs and a quantity of terrestrial air is released into the Brinn environment.

In both cases, the results are almost instantly hazardous. Both hydrogen and methane, the two primary components of a standard Brinn atmosphere, can combine explosively with the oxygen found in a conventional human environment. Once the contamination reaches a sufficient level, the slightest spark can set off a powerful explosion which may injure or kill those in the area.

In addition to the risk of detonation, there is the danger of toxins in the area of an air leak. To humaniti, the trace of hydrogen cyanide found in the atmosphere of Divad quickly causes unconsciousness and death. Likewise, the oxygen in a normal human's air supply is deadly to the Brinn, though to a lesser extent.

Although the two major components of Divad's atmosphere are both odorless and colorless to human perceptions, there are trace elements which are quite noticeable. Humans who have been fortunate enough to inhale traces of the outside air and survive agree that it smells like very bitter lemon with a hint of almost sickly sweet almond. The Brinn say that our atmosphere smells like "a thing long dead which has been pulled from the belly of a predator".

Another concern of the non-Brinn inhabitants of Divad is the danger of diffusion. The hydrogen in the atmosphere is able to seep through many standard materials even without a break in the integrity of an environmental seal. Although

diffusion does not pose the threat of poisoning those who breathe it, it can still reach flammable levels in time. The entire human settlement on Divad is sealed against hydrogen diffusion, so it is not normally a problem. Those who leave the main settlements and in small vehicles or vacc suits should remember to take precautions, however.

One must also take into account the low average temperature on Divad. In the city of B'Rel'Lhas, where the Imperial presence is most pronounced, the average temperature is almost -100° C. This has made the continuous operation of heating systems vital in areas which are used by humaniti. Even a small failure brings temperatures dangerously low in a brief period of time.

In order to counter both the hazard of environmental leaks and heating failures, every area of the Imperial Complex in B'Rel'Lhas is linked to a computer monitoring system which constantly tests the environment in the facility and sounds an alarm in the event of a malfunction or other hazard. Dangerous areas are evacuated (if possible) and then quickly sealed off.

BRINN GOVERNMENT

Divad is ruled by a civil service bureaucracy known as the Grand Dominion. Under Imperial guidance and control, the Dominion has been restoring a limited form of self-rule to the Brinn after centuries under a military government imposed by the Imperium.

The Dominion is made up of over three dozen councils, each of which is charged with the control of one area of society. The more important councils are those of Wealth (economics), Truth (religion), Knowledge (education), and Service (public welfare). Each of these is composed of 15 members (known as Dominators) who are grouped into three internal councils, approximating the functions of the judicial, legislative, and executive branches.

For example, the Council of Wealth is wholly in control of the Dominion's economy. Five of its members set down the laws which govern society in such matters, another group controls those portions of the planetary police force which enforces those laws, and the last team of Dominators passes judgment and hands out punishments to violaters.

Members of the various councils are selected by the Grand Council of Dominators. This group is made up of the senior members from each of the various ruling councils and serves no function other than to select replacements for those who die or retire from government office.

The Grand Council also has the power to decide that Dominators are unfit to continue in office; it can order them removed from government. The head of the Grand Council is the Grand Dominator (the senior member of the group) and it is he who adjudicates all ties in the council's decisions.

The nature of this arrangement is such that older, more conservative members of the government tend to be in positions of greater power than younger, usually more liberal, citizens. The overall result is that the Grand Dominion is somewhat resistant to large scale changes in governmental or social programs and generally supports the status quo.

THE COUNCIL OF VALOR

Under the terms of the military occupation of Divad and the Kateri system, the Brinn were not permitted to raise any form of military other than law enforcers. For centuries, however, a guerrilla war had been waged against the Imperium by groups of terrorists. This group was known, among the Brinn, as the Council of Valor.

Although their actions have not posed a serious threat to the Imperial forces in Kateri since the first Civil War (604-622), they have served to remind the citizens of Divad that they are under the hand of a human government.

As soon as their long sought-after revolution came and the Imperium was forced to leave the system to the Brinn, the Council of Valor took its place among the other branches of the Grand Dominion.

BRINN LANGUAGE AND COMMUNICATION

Being almost totally deaf by human standards, the Brinn have no spoken language. In its place, they have developed a communication system which is based on vibrations induced in the ground beneath them.

Two Brinn converse by settling upon their ventral clusters, bringing their vibrational sensors into contact with the surface below them, and then thrumming the ground with their powerful legs. Words and concepts are expressed by the number and duration of vibrations (in a manner similar to Morse code) while emotion is imparted by the intensity.

As might be imagined, two Brinn having a heated argument can engage in a great deal of stomping and pounding. In many cases, the evidence of a past conversation (deep foot prints, broken stones, and damage to the ground beneath them) may be obvious for several days.

BRINN RELIGION

The Brinn have developed a most unusual religious belief which dominates their lives in many ways and which is almost universally accepted amongst the citizenry. The roots of their beliefs can be traced back to the time shortly after the militant Solomani came to their system.

During this time, as the past glory of the First Imperium was quickly being bled away by the parasitic takeover of the Solomani, the existing Brinn religions began to lose popular support and falter. In less than a century, nearly every previously existing faith was in ashes, replaced by what is now simply known as the Truth.

In short, the Truth states that the Brinn (and all other lifeforms) were created by a single divine being of a universally unfathomable nature. This entity, known as H'Tykk'Ral, is cruel and slightly sadistic. The Brinn point to their own suffering over the last three millenia as evidence of this claim.

The reason for this unabashed hostility toward his offspring is obvious (to the believers): H'Tykk'Ral is testing his peoples. Those who cannot answer his puzzles and face his challenges are not worthy of ascent and evolution.

The Brinn believe that it is their purpose to rise up against their deity one day and confront him in the Great Conflict. If they are able to defeat him, and thus escape the tortures and torments which all who live in this universe must endlessly endure, they will assume his role as masters of the cosmos. With this in mind, individual Brinn work constantly to perfect themselves mentally and physically.

Their view of humaniti is greatly tinted by the Truth. They see all other lifeforms, but most obviously mankind, as competitors who must be overcome in the course of their struggles toward the final battle with H'Tykk'Ral. The fact that the Imperium is so far ahead of them in technology indi-

cates that they are nearer to the Great Conflict than the Brinn. The Truth encourages them to believe that victory over so superior a foe as humaniti would be greatly valuable in their preparations for the coming confrontation with H'Tykk'Ral.

The Truth is so much a part of the day-to-day life of the Brinn citizenry that they have no special churches or temples for religious services. All believers are expected to carefully cultivate the rage which they feel for H'Tykk'Ral and for the hostile way in which he has treated them.

The Brinn do not pray to H'Tykk'Ral in any conventional way, but rather, offer him threats and promises of defeat in the Great Conflict. It is not unusual for a Brinn in a desperate situation to make statements which, roughly translated, mean "This is another insult to my race which must be avenged" or, as the Imperials on Divad often joke, "That's another one I owe you, God".

The Second Grand Survey, published in 1065 by the Imperial Interstellar Scout Service, listed the religion of the Brinn as having a Universal Religious Profile of 9D0992-8.

R'EARST'AHLANN

One of the most unusual aspects of the Truth is the practice of R'Earst'Ahlann or the Great Tribute. As a part of their struggle to win liberation from the cruel hand of their deity, the Brinn feel that it is important to understand their enemies. Their religion states that the best way to do this is to "assume the thoughts of the competitor". This is done, quite simply, by eating the brain of a worthy foe.

It should be noted that the Brinn are not simply monsters with an unending hunger for brains, as many stories of battles with them might indicate, and that the process is not commonly invoked on humans. When it is done, however, R'Earst'Ahlann is considered to be the finest compliment which one can pay to an enemy.

The Brinn have a saying which, when translated, goes something like this : "I will savor the taste of your thoughts and learn from this diet of your flesh". These words, or others to the same effect, are often "spoken" to a respected enemy prior to his death as a sign of respect.

One of the foremost reasons for the rarity of R'Earst'Ahlann in battles against humaniti is simple medicine: human beings (and their brains) are quite toxic to the Brinn. Hence, when the Great Tribute is to be paid to a human (or similar) foe, the Brinn is placing his own life in grave danger. Only the closest of medical supervision and the injections of massive doses of anti-toxins can make the ritual fairly safe.

THE IMPERIAL COMPLEX

The vast majority of Imperials who dwell on or visit Divad spend virtually all of their time in the Imperial Complex. This city-sized complex is sealed off from the outside environment and isolates its two million inhabitants from the hostile world on which they live.

Much of the complex has been constructed beneath the surface, with only the starport and portions of the Imperial military installations found above ground. Underground are the normal bureaucratic offices of the Complex, housing for both military and civilian inhabitants, as well as a small complement of shops, theaters, and similar recreational areas.

Due to the vastly different environments which human and Brinn inhabitants find comfortable, direct contact between the two races has always been limited. The military situation on Divad has not helped matters, and many of the humans who live there have never seen a Brinn in person.

Only recently, with the theoretical return of the system to civilian rule, have Brinn been allowed to enter the Imperial Complex. When inside, they must wear bulky environmental suits to protect them from the terrestrial temperature and atmosphere. Over the last few years, a few of them have taken up residence within the Complex, in areas sealed off from the rest of the facility, to work more closely with humans.

Smaller but similar Imperial settlements exist in the cities of T'Horis'An and V'Hol'Dahl. Each of them has a population which is roughly half that of the Imperial Complex at B'Rel'Lhas.

THE BRINN IN MEGATRAVELLER

As word of the assassination of Strephon and the fragmentation of the Imperial Core reached Divad, the Brinn resistance units launched a massive campaign of propaganda and guerrilla warfare against the Imperial personnel on their world. Almost at once, riots broke out in the major cities and the masses turned on the Imperial military forces stationed in the Kateri system. In the first night, rebel forces were able to take control of the planet's starport at B'Rel'Lhas and cut off many Imperial citizens who were trying to escape the impending revolution.

As soon as the area was secured, the Brinn began to slaughter their captives under orders given to them by the Council of Truth. Their liberation was at hand and the oxygen breathers would be destroyed at last. Whenever and wherever they were found, non-Brinn were put to death quickly.

Over the course of the next ten years, during which the civil war was at its height, the Brinn stayed within their system and built up a military force. Outside, the shattered Imperium did its best to commit suicide and paid little attention to the loss of the Brinn system. It was a fatal mistake.

The Brinn moved out of the Kateri system quickly and struck at nearby human worlds. Once again, their tactics were simple and effective. Whole cities were incinerated by thermonuclear weapons and billions of people were slain in the initial attacks. The majority of those who survived the first onslaught fell victim to the ecological collapses brought on by extensive radiation exposure and the blocking of sunlight by the gigatons of dust which suddenly filled the upper atmospheres.

Currently, the Brinn occupy a group of six star systems in the rimward portions of Corridor Sector (located at 2039, 2040, 2140, 2238, 2239, and 2338) which can be reached only by jump-2 or better. They have isolated themselves from humaniti and seem, for the moment, to be content with the area of space which is currently in their grasp. There can be little doubt, however, that the Grand Dominion will seek to expand its power in this region as the unrest following Strephon's assassination continues.

GRAND SURVEY WORLD PROFILE

World Name:	Divad/Sinta/Corridor
Location:	Corridor 2238
UPP:	C8C0885-8

Physical Data:

Diameter:	13,120 km
Density:	0.76 standard
Mass:	0.82 standard
Surface Gravity:	0.78 g
Rotation Period:	36.7 hours
Orbital Period:	12.28 local days 18.78 standard days
Seasons:	2
Axial Tilt:	16°
Orbital Eccentricity:	0.02
Satellites:	None
Surface Atm Pressure:	1.9 atm
Atm Composition:	Hydrgn (70%), meth(28%)
Atm Terraforming:	No
Hyd Percentage:	4.7%
Hyd Composition:	Hydrogen cyanide
Hyd Terraforming:	No

Termperature:

Base Surface Temp:	-100° C
Axial Tilt Modifiers:	+9° (summer)/-16° (winter)
Rotation Modifiers:	+7.34° (daytime)/-9.18° (nighttime)
Latitude Modifiers:	+/-7° per hex row
Eccentricity Modifiers:	+0.6° (periastron)/-0.6° (apastron)
Other Modifiers:	None
Weather Control:	No
Grnhouse Terraforming:	No
Albedo Terraforming:	No

Mapping Data:

Nbr Tectonic Plates:	1
Native Life:	Yes
Terrain Terraforming:	No
Major Continents:	World
Minor Continents:	World
Major Oceans:	0
Minor Oceans:	0
Mapping Details:	2 small seas 12 scattered lakes regns

Seismic Data:

Stress Factor:	2
Notable Volcanoes:	None

Resources:

Natural Resources:	None
Processed Resources:	None
Manufactured Products:	Weapons, Heavy Equip

Population & Ports:

World Population:	864,753,000 (Brinn) 3,570,100 (human)
Primary Cities:	B'Rel'Lhas; 80 million; class C V'Hol'Dahl; 70 million; T'Horris'An; 70 million; 4 others at 20-50 million; no port
Secondary Cities:	56 with populations of roughly 5 million and no starport facilities
Tertiary Cities:	132 with populations of roughly 500,000 and no starport facilities

GRAND CENSUS CULTURAL PROFILE

World Name:	Divad/Sinta/Corridor
Location:	Corridor 2238
UPP:	C8C0885-8

Cultural Profile:

Progressiveness-Att:	Conservative
Progressiveness-Act:	Enterprising
Aggressiveness-Att:	Expansionistic
Aggressiveness-Act:	Militant
Global Extent:	Monolithic
Interstellar Extent:	Xenophobic

Technology Profile:

High Common:	8
Low Common:	8
Energy:	9
Computers/Robots:	7
Communications:	7
Medical:	7
Environment:	8
Land Transport:	9
Water Transport:	9
Air Transport:	9
Space Transport:	9
Personal Military:	9
Heavy Military:	9

Government Division of Authority: The Grand Dominion is governed by a civil service bureaucracy which is composed of over three dozen committees which each have absolute authority over a specific area of the society. Each council is made up of 15 members known as "Dominators". These fifteen are then further divided into three groups of five, each of which is charged with the administration of a specific branch of government (legislative, executive, or judicial). The members for each council are selected by the Grand Council (which is composed of the senior members of each lesser council). The Grand Council also has the authority to find members of any council (including their own) guilty of misconduct and remove them from service. The senior member of the Grand Council is the Grand Dominator and the theoretical apex of the governmental structure.

Local Customs:

Unusual foods eaten by members of the military: As described elsewhere in this text, the Brinn have a most unusual practice which is known as R'Earst'Ahlann (the "Great Tribute"). It has long been an aspect of Brinn religion that the consumption of an enemy's brain after a valiant combat would allow the eater to gain aspects of their wisdom for use in his own future campaigns. This tribute is rarely paid to humans for one simple reason: humans and similar life forms are highly toxic to the Brinn metabolism. Only under the closest of medical attention can the Great Tribute be paid to a human being.

NOTES ON GENERATING BRINN CHARACTERS

In the course of an on-going campaign in Sinta Subsector, the referee may find it desirable to generate fully detailed Brinn characters. It is not recommended that Brinn be created for use by player characters unless they are part of an entire party of Brinn. After all, a Brinn among non-Brinn would probably not last long.

SERVICE RESTRICTIONS

The Brinn homeworld Divad has a tech level of 8 (Early Stellar) which means that Brinn characters cannot be generated as Barbarians. In addition, the Brinn do not have any form of Diplomatic Corps or Noble class and the environment of Divad makes Sailors unheard of.

Brinn who wish to become members of the Army, Bureaucracy, or Marines are eligible for a +1 to enlistment and special duty rolls. However, members of the Army and Marines must take a -1 on all survival rolls. These modifiers apply to both the basic and expanded MegaTraveller character generation systems.

CHARACTERISTICS

The Brinn are far stronger and rugged than human beings so they roll their initial scores for Strength and Endurance on 1D+8. Their great size and bulk makes them somewhat slower and less nimble than humanoid races, causing them to take a -2 on Dexterity (to a minimum of 1).

Intelligence and Education are normal 2D rolls for Brinn characters. Social Standing is rolled normally, but has little actual value in the Grand Dominion. High scores can be taken to indicate that the individual is well respected by those familiar with their accomplishments, while low scores show that the person is not well known or admired.

PSIONICS

The Brinn have shown no evidence of naturally evolved psionic powers and generally regard the existence of psionics in other sentient races as more evidence that the universe is stacked against them.•

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DETHENES SUBSECTOR

The Dethenes Subsector (subsector A of Old Expanses sector) was originally colonized during the Great Solomani Expansion period, early in the Rule of Man.

The subsector is named for its capital, Dethenes. Today, Dethenes is also the capital of the Dethenes Technical Alliance. The alliance seeks to keep its technological secrets from travelling outside its borders. The worlds of Elyan, Bincia, and Kri are also members of the alliance.

Travellers are advised to excercise caution when travelling to the alliance worlds — if accused of a crime when on one of the worlds of the alliance, the unwary traveller may be incarcerated for decades.

Name	*Location*	*UPP*	*Bases*	*Classifications*	*Data*	*Align*	*Zone*
Croesus	0108	C230675-9	S	De Na Ni Po Xb	804	Im	A
Datarkt	0109	C433AD9-7		Hi Na Po Xb	403	Im	R
Elyan	0201	B752855-B	A	Po Xb	614	Im	A
Thubria	0204	C112234-B	S	Ic Lo Ni Xb	910	Im	
Larmix	0209	C787878-5	S	Ri Xb	604	Im	
Bincia	0302	B598652-9	A	Ag Ni Xb	913	Im	A
Kri	0304	B646459-C		Ni Xb	313	Im	A
Diacy	0306	E667A74-9		Hi	504	Im	
Styge	0310	D655699-6		Ag Ni Xb	612	Im	
Dethenes	0403	AA89A44-G		Hi Cp Xb	900	Im	A
Larspri	0408	X1B1000-0		Ba Fl Lo Ni	200	Im	
Preodis	0508	E341856-6		Po	104	Im	
Eupry	0603	C4448B6-6			304	Im	
Linourice	0606	C521321-9	S	Lo Ni Po Xb	404	Im	R
Inthra	0607	C422AD9-9	A	Hi In Na Po Xb	524	Im	R

The Dethenes subsector contains 15 worlds with a total population of 240.403 billion. The highest population is 93.5 billion at Dethenes; the highest tech level is G, also at Dethenes. All worlds are members of the Imperium. The Data column lists the population multiple, number of planetoid belts, and number of gas giants. Key: Cp=Subsector Capital. Xb=Xboat Station.

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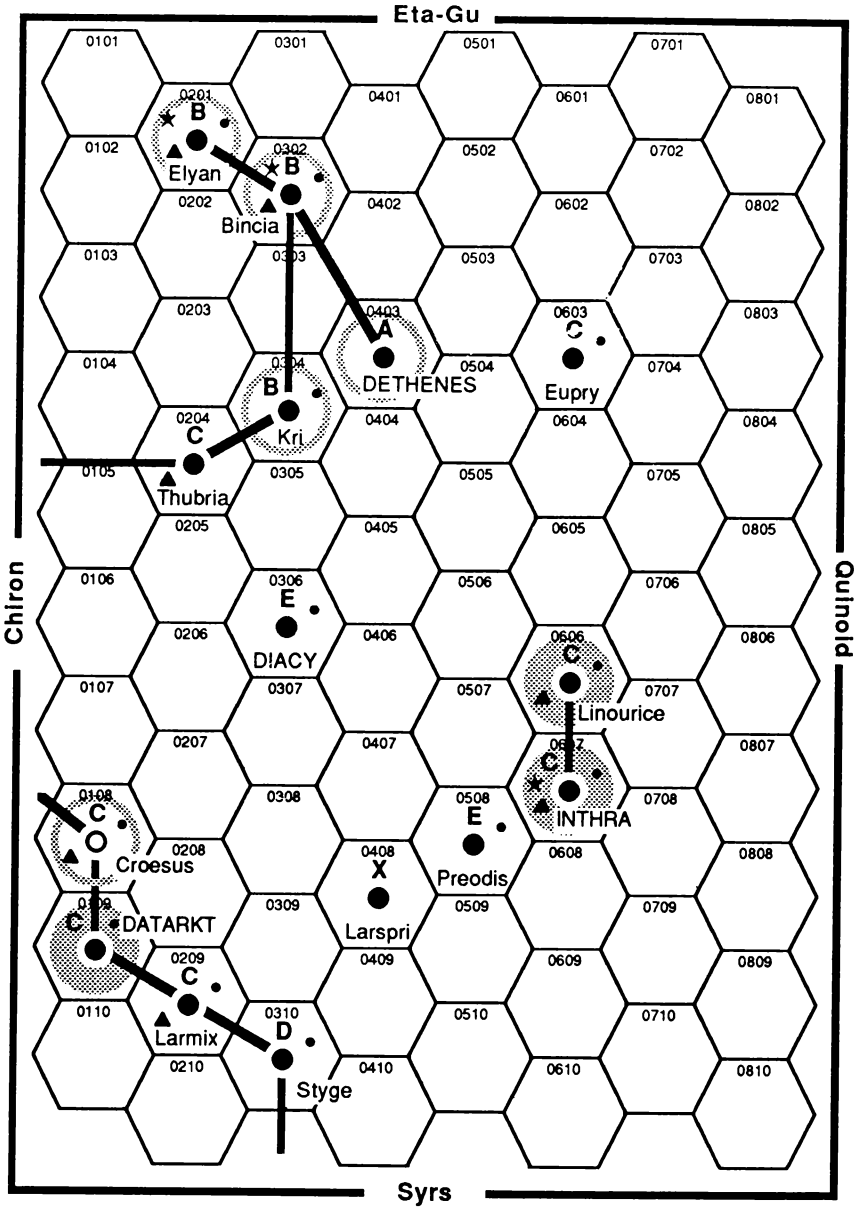
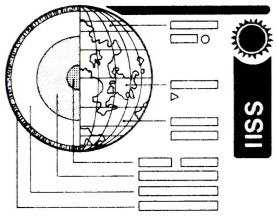


Dethenes Subsector

Subsector A of Old Expanses



Torrel

SYSTEM SURVEY

—by John A. Theisen

Torrel is the main inhabited world in the Torrelac star system, located in Old Expanses Sector of the Third Imperium. The information contained in this system survey is based on the most recent data available, as obtained from the Imperial Interstellar Scout Service.

(The continuation approach, as elaborated in GDW's *Book 6: Scouts* was used for preliminary star system generation. Information and procedures appearing in DGP's *Grand Survey* (first edition) and *Grand Census* completed the process.)

GENERAL SYSTEM DATA AND HISTORY

Torrel/Old Expanses (2818 C357A95-A) is the sixth satellite orbiting Amra, which in turn is a small gas giant and the second planet orbiting the F9 V main sequence star Torrelac, the primary in a binary system. Including Torrel, a total of six planets and their 30 satellites orbit Torrelac. Epop, Torrelac's M0 V companion star, is in close orbit and possesses no satellites of its own. Located in the habitable zone, Torrel and the larger neighboring satellite of Jerefnos are the most ideally suited for colonization and settlement. However, Jerefnos supports only an extremely limited population at the directive of the Torrelian govenment, and has not been adequately developed for immigration. This inaction, perceived by some as unforgivable negligence, is a significant point of contention in Torrelian politics.

Torrel has long been a settled world and member in good standing of the Third Imperium. A small but densely-populated world, visitors have described it as "25 million square klicks of pavement" and "a subsector crowded onto a large moon." While these may be described as exaggerations, they are only slightly so. Still, Amra's most populous satellite was not always this way.

Torrel maintained a population of reasonable proportions until the late 900s. Ovalle, then reigning Archduke of Sol, was a venerable and highly popular (but somewhat eccentric) nobleman whose mandates were often inspired by visions he claimed to experience. During one particularly noteworthy dream in 982, Ovalle allegedly foresaw a war in the near future involving his archdukedom. Agitated by this dream, he ordered the site of his court moved from its current location to Torrel, a planet that figured prominently in the vision.

At this time, the Imperium was deeply embroiled in the Third Fromtier War, with its collective attentions turned spinward. A few doubted Ovalle's credibility more than ever, but neither Emperor Styryx (whom, it is said, was told of Ovalle's dream) nor his court nobles had any time for the old man's ravings. Thus the Archduke persisted, giving his followers and administrative subordinates a deadline of 11 years hence. Their task in essence: to move and relocate the central ruling government for more than 1,000 worlds.

Matters were not progressing especially well in the war or on Capital, as Styryx was forced to abdicate in 989 (preferring that to other less pleasant options). Some have speculated that the dislocation and disruption of the Sol archdukedom contributed to Styryx's downfall. This may be overstating the situation, but in any event it could not have done the ex-emperor any good.

Ovalle died of natural causes less than three months after the Imperial abdication, not living to see the relocation completed. His successor, Klaxren, immediately ended the operation and obstinately refused to move the court. However, several billion people had already been moved at Imperial expense to Torrel, and they were fully prepared to settle down and live their lives out on their new homeworld. If that was their choice, Klaxren declared, they would be permitted to stay, but he would not provide offworld transportation back. In effect, Torrel was to be the dubious recipient of a single, mammoth wave of immigrants. Sadly, the aged archduke's death came just before the Solomani Rim War began (in 990), the war he himself had predicted eight years earlier.

In addition to an unusually high population density (one of the highest densities of any planet in the Imperium), other factors have made Torrel a less-than-ideal choice for a home. Tidal stresses produced by the 50,000 km gas giant Amra invoke frequent (albeit temperate) volcanic and seismic activity. A notoriously resource-poor world, Torrel is also located in a fairly remote mini-drift of the Old Expanses, with only three systems within distance of a 3 parsec jump. Finally the planet's population is heavily dependent upon agroproducts from other worlds, just so its inhabitants can survive.

In turn, however, some of the largest civilian electronic component factories in known space can be found here. Despite its relative isolation, most of the largest megacorporations maintain large offices, and many smaller firms have made this system their headquarters. It may not be the court site for the Archdukedom of Sol, but it is an immensely valuable member of the Imperium and its contributions are felt in every neighboring sector and beyond.

TORREL'S NEIGHBORING SATELLITES

Jerefnos (Y558365-9) is the site of a large, heavily mechanized farming community, and the source of food for several hundred million Torrelians. A pilot project and potential site for colonization, Jerefnos boasts one of the Imperium's larger computer-managed farms, with a massive network of computers and automated devices looking after most of the cultivation, maintenance, and harvesting chores. In many respects, Jerefnos is more hospitable than Torrel, which has caused some people to wonder why Torrel became the system's main world in the first place. Many now believe a full-scale program should be begun to move inhabitants of Torrel to Jerefnos, but the bureaucratically slow government has been particularly reticent to respond to this issue. Knowing the Jerefnos colony is under the direct and exclusive control of the Ministry of Systemic Affairs has made the entire subject a favorite target of media investigations.

A few critics ask whether the government is engaged in illicit or covert activity and is therefore reluctant to expose any facts; others simply attribute the delays to an especially poignant example of a top-heavy and horribly unresponsive administration. Either way, little is being done to advance the Jerefnos immigration program.

To those who prize Jerefnos' agricultural development and wish to see the world undisturbed, Marlec (Y352000-0) is viewed as the next most likely site for expansion and exploitation. Similar in many respects to an unpopulated version of Torrel, Marlec has remained undeveloped so far; again, for unknown reasons.

Regen (G340227-9) is an unusual world, both environmentally and sociopolitically. The planet, in a phenomenon barely understood, is a virtual dustball. Though it is believed the planet formed as an accretion of particles within its orbit of space, the non-gravitic binding forces which caused it to accrete are weakening or dissipating. As a result, the planet is quite literally coming apart, beginning with the soil and working down toward the core. Thick clouds of soil and decomposing rock fill the atmosphere continuously, and the act of walking across an open field is enough to raise a cloud of dust that will eventually join with the main dust cloud encircling the planet. Even a spaceship passing through the atmosphere can cause "waves" in the soil-saturated air. Violent winds are uncommon, but visibility rarely exceeds several hundred meters. Effects of gravity are normal, and it is not known what force causes the particles to remain suspended in the atmosphere. Baffled physicists agree the planet is shrinking microscopically in size and will "evaporate" entirely in several hundred thousand years. Regen is described as one of the most puzzling physical phenomena in the galaxy.

Meanwhile, Regen is the site of a community of several hundred technicians who test environmental suits and related equipment. In a long-term political experiment, inhabitants of the planet are being allowed to vote personally on certain actions directly involving their outpost, including managerial candidacies. This concept of participatory democracy was necessarily abandoned by the Torrelian government shortly after the massive immigration in the 980's, and this small but meaningful effort represents one of the government's most innovative and progressive projects.

Kartez (HS00167-9) is a planetoid-sized chunk of rock that has been taken over by the Imperial Interstellar Scout Service for the system's Scout base. About 45 permanent residents call the pressure domes of Kartez "home," though a number of Scouts, naval personnel, and technicians do serve temporary assignments at the station.

Ralfed, Voceedal, and Hutchinson are essentially uninteresting and uninhabitable worlds, though Hutchinson's trace atmosphere may lead to its development at some time in the distant future. All three possess mineral deposits and other resources worth exploiting, should Torrel's economy become more industrialized in its emphasis.

OTHER WORLDS

Five of the six planets in the Torrelac system are gas giants (Amra, Sitapur, Kinel, Pequannock, and Bergsland), making this system one of the "richest" sources of unrefined fuel anywhere. Pequannock is worth mentioning for its unusal orbit, being a captured planet — though it is not known from where. Presumably, its satellites were wrenched from orbits around Kinel or Bergsland, but the subject is still under study. The sixth planet, Dae, is remarkable only for being so unremarkable.

Small research laboratories have been established on Awnye (Sitapur's sole satellite) and Gilbert (the third satellite of Pequannock), both involved in analyzing the atmospheres of their respective gas giants and evaluating costs for fuel purification. If either lab should prove that purification is cost-effective, one or both satellites may be upgraded to type B or C starports. Liberty, Xixabangma, and Fall Ssubrk are the sites of three small outposts where their inhabitants are being studied for various phobias related to high population densities. Liberty, in particular, has a fully equipped psychiatric facility for the treatment of sèvere neuroses, with a subsector-wide reputation. The remaining satellites are of little interest.

PHYSICAL DATA

A very small planet or moderately large satellite (depending upon one's perspective), Torrel has the mass and surface gravity one would expect of a rocky-core world. The surface atmospheric pressure is only 0.50 atm — but by the third generation, most native Torrelians have developed a somewhat larger lung capacity, living and working there without inconvenience. The slow rotation (almost 50% longer than most ship-clocks) can be an unpleasant annoyance to some; its most pronounced effect is a sense of "time lag" and related fatigue lasting several days to weeks. The local year alternates between 290 and 291 days with an extra "jump day" compensating for the 290.49-day orbital period.

As small as Torrel is, it could never have supported its current population without weather control and substantial terraforming, most specifically in the areas of greenhouse effect, albedo, and terrain. Fortunately, the absence of native life made such engineering less complicated; the world was adapted as desired without endangering or jeopardizing any locals.

Though large mountain ranges never did exist on Torrel (it is geologically difficult for massive mountains to exist where erosion is an active force and the entire world consists of a single tectonic plate), the few lesser ranges had to be virtually leveled to create additional land for urban development. As a result, the highest point on Torrel is now slightly less than 3000 meters above sea level.

At one time Torrel was also slightly cooler that it is today. During the 800s, terraforming engineers administered massive, but deliberately controlled, carbon dioxide "injections" into the atmosphere (burning low-hydrocarbon fossil fuels and releasing highly compressed sophont exhalations were two of the best sources). Though the atmospheric composition was not substantially altered, their efforts successfully intensified the greenhouse effect and raised the base mean surface temperature by approximately 4°C. The ice cap was slightly reduced in size and the cloud density was slightly raised during the same period. Since then, scientists have carefully monitored the environment to avoid any potential of a runaway greenhouse effect which could render the world uninhabitable.

The single most important adaptation involved weather

control and coastline protection. The severe axial tilt of this world, combined with the high hydrographic percentage and the tremendous gravitational stresses produced by Amra and the other satellites, causes phenomenal ocean tides and storms. If this were a larger world with proportionately larger oceans, the problem would be even more dramatic; fortunately, the peculiar land distribution and the presence of many islands and archipelagoes break up areas of open ocean, limiting most hurricane tracks to only several hundred kilometers in length. Weather control diminishes the effects of most storms, and provides early warning for the most severe and uncontrolled climatic changes.

Land masses on Torrel consist of one major and five minor continents, with more than two dozen major islands and archipelagoes dotting the world's oceans. With only one tectonic plate, seismic activity is uniform across the planet's surface; there are no areas of inactivity and likewise no areas of excessively high activity. Earthquakes and volcanic eruptions occur frequently, but most tremors are mild in magnitude, and eruptions most often take the form of gentle lava outflows.

Torrel has only one chief resource: skilled, educated labor. Natural resources are virtually non-existent, agricultural products do not cultivate well in the world's characteristic rocky soils, and minerals and gems are unknown here except for those brought from other systems. Yet despite the world's handicaps and its remote location, its starports see several hundred starships pass through each month, including huge 100,000-ton bulk cargo carriers. Their cargo coming in is almost without exception foodstuffs and agroproducts; going out, ships haul electronics and heavy equipment for the buyers of half a dozen subsectors. Many merchants on jump-adequate starships have spent their entire working lives travelling between Torrel and a neighboring system or two, beginning as cabin boys and retiring as merchant fleet captains. It may not be the most exciting way to make a living, but it is without doubt a steady and consistently profitable way.

Although there are more than three dozen separate cities on Torrel, and although each one would qualify in territory and population as a city-state, most people think of this world as the home of "the City." Torrel Oro (which, translated from the local dialect, means "home of the people") is one of the most populous urban areas in the entire Imperium. Its population alone, in excess of 40 billion residents, exceeds the entire population of Arcturus Subsector in the Solomani Rim. This is where the people who live and work at the factories make their home.

In contrast, the relatively smaller city of Winchester is the administrative, judicial, cultural, and educational capital of Torrel. A sharp separation, inherent in the world's political system, exists between those in government and those served by government. For example, only government employees and students (including Imperial Naval personnel and starport workers) and their families are permitted by law to live in Winchester, whereas anyone may live in any of the other cities.

The only class C starport on the planet is located in Torrel Oro, while a smaller class D starport services Winchester directly. This port is likewise reserved for official use (including authorized food shipments) or the private use of government employees. The other type C starport is maintained at the orbital city of Selwyn. Though the smallest of the three major ports, Starport Selwyn coordinates orbital flights and helps handle any overflow traffic when the surface ports become jammed with incoming shipments (a common enough occurrence). Other major cities are equipped with type E, F, or G spaceports, though the city of Plainspring has petitioned for an upgrade to equal type F status.

CULTURAL PROFILE

Actions may speak louder than words, but the people of Torrel generally prefer words anyway, with a sense of inertia approaching stagnation. Their entire philosophy was formed and shaped by the immigration of the 980s, during which the forebears of many Torrelians first set foot on this small world. When Ovalle authorized and Klaxren then canceled the relocation of the archdukedom, a deep and lasting impression was made on all; words and attitudes may be progressive, but actions related to the words may or may not occur as a result. During the most significant moment in Torrel's cultural development, events "disproved" the cause-and-effect relationship between attitude and action. Thus, a sense of cultural inertia was thrust upon those involved, and this sense has been passed down in much the same way as oral history was once passed from generation to generation.

Modern Torrelians (i.e, average citizens, not government officials) speak of grandiose plans for the future, make elaborate lists of things to do, outline and organize events to participate in, and so on. But at that point, their efforts cease and the plans abruptly end in the list-making stage. These attitudes do not adversely affect everyday life or overall productivity, but they do seriously hamper any broad, long-range goals. One cynical observer stated: "The inhabitants of few worlds talk as much, then do as little, as Torrelians. In this light, it is difficult to imagine how or why Torrel should ever have an overpopulation problem."

Their indifference presents itelf in another aspect as well. Torrelians are a peaceful, generally content people, not seeking combat with any party and preferring a negotiated settlement to any open hostilities. This does not mean that they will not fight among themselves on points of contention (such as the colonization of Jerefnos, for instance); they will argue and fight tooth-and-nail for issues on which they have a strong conviction. However, they always maintain an open door policy toward visitors and welcome traders and diplomats with equal factility. This is due in great part to Torrel's utter dependence on foreign trade to feed the world's population. They respect good will, they foster good will, and they disagree only in the privacy of their own numbers.

Torrel is a net importer of food, all related agroproducts, and raw industrial goods (such as metal alloys and ores), and a net exporter of electronic components and heavy equipment. In many cases, the parts are shipped here for assembly and then delivered to appropriate distributors. Despite the enormous agroproduct imports, Torrel has a very favorable balance of trade (vital, but low-cost goods coming in, luxury and non-luxury high-cost goods going out).

WORLD MAP GRID

This geodesic map grid divides the spherical surface of any globe into twenty triangles, each of which is further divided into hexagons. Note terrain identities and other planetographic features of the world in these hexagons.
Total number of map hexes per triangle: 25. Total number of map hexes: 500.

1. Date of Preparation	2. World Name (and UPP)		3. Hexagon Scale in Kilometers (circumference divided by 35)	4. Subsector and Sector Location of World
041-1113	Torrel	C357A95A	455 km per hex	Old Expanses/Ile

IS Form 21

World Map Grid (Large)

TECHNOLOGY PROFILE

Most achievment tech levels on Torrel are very much in keeping with the technology found on many "low average" Imperial member worlds, and the degree of scientific development has been unusually consistent across a broad range of fields. The high population has had a negative effect on the low common technology index because of the problems in disseminating technology to billions of inhabitants, but most would agree the standard of living is well within acceptable levels.

The areas of computers and robotics, communications, and medicine lag slightly behind the world's average; environmental science is further advanced. Torrel has some of the finest examples of high-density urban planning and associated architecture to be found in the Imperium, and the relative success (or conversely, lack of major failure) of Torrel Oro is often cited as a model for designing smaller cities on other worlds. As might be expected, high-tech novelties are quite popular with the consumers of Torrel, and demand continues to be strong with speculative merchants only rarely meeting the market's needs. Traders who visit the system with purely unessential, but technologically sophisticated, goods may be assured a healthy profit.

GOVERNMENT

The leading governmental authority on Torrel is divided equally between the executive and judicial branches. Each city (or as described earlier, "city-state") maintains its own executive city great council, with between 3 and 15 members, and judicial city high court, with between 1 and 13 members, depending upon its population and territory. When issues affect more than a single city, the entire cocils for all cities involved meet in a joint session, with each councilmember or courtier receiving a single vote; if every member of a given council (possessing two or more members) agrees unanimously, the council itself is awarded an additional vote on its members' behalf. The World Great Council and World High Court thus have approximately 140 and 115 votes respectively, though this number varies slightly based on the number of unanimous decisions presented by each city council.

Councilmembers and courtiers are elected by the body of government employees, to renewable full-time four-year terms. Non-government employees have no voting rights, except for the process of recalling employees if due cause can be shown for dereliction of duty (the last time cause could be proven was more than a century ago). Councils and courts are always considered to be in session, but enormous backlogs exist on the docket for appointments and hearings. In most instances, the case or issue is brought forth before a lesser council.

The slightly less important legislative branch is headed up by a Citizens' Senior Council and numerous Junior Councils, whose members are also voted on by employees, but to non-renewable eight-year terms. These Councilmembers are responsible for passing necessary laws and occasionally researching old laws for legal precedent.

Approximately 1.85 billion inhabitants of Torrel (specifically in Winchester) are government employees, permitted to vote, and thus entitled to call themselves "citizens". Even though only about 3% of the population may vote, politics is definitely not a spectator sport. Many Torrelians talk about legal reform, the need for new government programs, or the abolition of old ones. Yet few new laws are passed and few programs are altered for three reasons: 1) the sheer enormity of the population discourages innovation and progress — everyone is genuinely busy trying to maintain the services already in place; 2) due to the culture's nature, talking about change is one thing but implementing it is another matter entirely; and 3) the government is so thoroughly isolated from its constituents that direct access is difficult to come by.

Even though each city has its own representative councils and courts, the members of all councils and courts live in the city of Winchester, and not in the cities they represent! Contact between the general populace and citizens is almost always limited to electronic terminals (located all over the planet) where anyone can type in anything they wish to have on record. In the majority of instances, their input is monitored and (if noteworthy) considered, but it is seldom acted upon.

Despite the clumsiness of the Torrelian political process, and its occasional failures, competition for government jobs is not as intense as might be expected. Many people would prefer to grumble now and then, rather than to take responsibility for the outcome of their ideas. Though the impersonality is not lost on anyone, no one has come up with a viable solution for the process as a whole. Torrel will probably continue to operate its cumbersome government as it has been doing, until some sort of sweeping reform is introduced or the entire political system collapses under its own weight. No one is willing to wager on which will occur first.

PLANETARY LAWS AND ENFORCEMENT

The overall law level on Torrel is slightly lower than average, though certain areas of law deviate wildly from this composite. Some would say that the government does not have the time to enforce all the laws, so it concentrates on the most important ones. There may be some truth to this, though the cultural aggressiveness might provide a better explanation. Personal freedom is incredibly widespread and unrestricted for a world as populous as this. Weapons regulations are equally relaxed; personal arms must be registered, but those data are then filed with the government and in effect forgotten. Instead of arbitrarily controlling the existence or presence of weapons, their illegal use is severely punishable. The criminal law code, particularly concerning violations against persons or government property, is clear, easy to understand, and harsh enough to act as an effective deterrent. In comparison, civil laws are slightly looser in concept and less restrictive in nature.

On the other hand, trade regulations are very explicit, very detailed (though still easy to understand, regulation by regulation), and very unforgiving. In general, they fall into two categories: laws affecting imports (goods from other worlds coming to Torrel) and laws affecting exports. The export laws are designed to ensure the quality of Torrelian goods sold in other markets. The import laws are designed to ensure the quality (and with agroproducts, purity) of goods received on Torrel. Few things irritate this world's law enforcement officers more than slipshod merchandise pawned off on an unsuspecting citizen (or non-citizen, for

that matter). While off-world merchants and free traders need not worry about the export laws, anyone who intends to bring goods onto Torrel had better do his or her homework — capital punishment is still in effect for gross negligence on import violations! Fortunately, a special database program containing the entire import law and tax code is available at no cost to any trader who requests it; this program is fully interactive and can be executed on any shipboard computer. (Contact the starport customs office at Torrel Oro, Winchester, or Selwyn for your free copy.)

There is one other note worth mentioning: inhabitants of Winchester are exempt from most minor violations and misdemeanors. In a 1022 court ruling, the World High Council voted to overturn a law giving limited legal immunity to government employees. In its place, the immunity was granted to residents of the capital city. Since only employees and their families may live in Winchester, there is very little difference in the law's application, but such is the legal web in which the Torrelians are entangled.

Based on Imperial records and Scout reports, Torrel does not qualify for any special trade classifications.

SYSTEM REGULATIONS

System regulations are few and quite simple: the larger ship has take-off and landing priority, fuel and service priority, and right-of-way while in transit (Imperial Naval vessels are excepted). This protects the huge cargo carriers and forces the smaller, more maneuverable craft to comply with local conditions. In-system traffic frequently backs up and low-orbit holding patterns may be formed as needed, though these seldom last more than one planetary day. Starport Selwyn is the primary source of official information; instructions transmitted from this base must be observed. Aside from problems of congestion, all normal Imperial rules of intrastellar navigation apply. The presence of a naval base on Torrel ensures that order is maintained.

RELIGION

Numerous religions are observed by billions of adherents on Torrel. The government permits complete freedom of worship and no state religion exists.

BARRON AND PARO: AN OVERVIEW

Barron (2816 B300477-8) is a small, non-industrial vacuum world with a population of 25,000 divided into eight separate and distinct nations. Barron is the site of Imperial Naval and Scout bases, and the system has a gas giant.

Paro (2917 D9CA613-9) is a large, non-industrial water world with an insidious atmosphere and a population of 6.3 million. Paro is "owned" and operated by Universal Paro Systems, Ltd., an Imperially-chartered corporation consisting of literally every inhabitant on the planet. Paro is the site of an Imperial Scout base, and the system has a gas giant.

Barron and Paro are both 2 parsecs from Torrel. Neither world has much to offer Torrelians in the way of services or trade, though Paro purchases from Torrel a respectable quantity of electronic equipment and vacc suits (which must be replaced regularly because of corrosive effects from the planet's atmosphere).

IS FORM 11- Star System data

1. Date of Preparation: 041/1113
2. System Name and Hex Location: Torrel 2818
3. Subsector and Sector: Ile/Old Expanses
4. Star Name: Torrelac
5. Spectrum and Size: F9V
6. Magnitude: 4.34

World and Satellite Data

Orbit	*Name*	*UWP*	*Remarks*
Primary	Torrelac	F9 V	
0	Epop	M0 V	Companion
1	empty orbit		
2	Dae	Y530000-0	
42	Radched	Y400000-0	
3	Amra	Small GG	
6	Regen	G340227-9	
6.6	Raled	H100000-0	
6.8	Jerefnos	Y558365-9	Farming
8	Kartez	HS00167-9	Scout base
11	Voceedal	YS00000-0	
33	Torrel	C357A95-A	Naval base
47	Hutchinson	H312000-0	
60	Marlec	Y352000-0	
4	Sitapur	Small GG	
56	Awnye	H500136-A	Research laboratory
5	Kinel	Large GG	
3.9	Kosciusko	Y420000-0	
4	Niltonc	H100000-0	
5	Balikesir	Y620000-0	
6	Dubovka	Y300000-0	
10	Mea	Y100000-0	
14	Swansboro	Y300000-0	
18	Targid	Y200000-0	
22	Ovalle	Y623000-0	
51	Everett	Y310000-0	
6.4	Pequannock	Large GG	
6	Boromlya	Y400000-0	
8	Linnfrak	Y100000-0	
9	Gilbert	G320165-A	Reasearch lab
10	Kelog	YR00000-0	
31	Nariah	Y600000-0	
45	Qaunicot	Y310000-0	
7	Bergsland	Small GG	
7	Liberty	GS00236-9	
10	Holand	Y200000-0	
23	Xixabangma	GS00166-9	
32	Fall Ssubrk	GS00267-9	
39	Yeckul	Y610000-0	

***GRAND SURVEY* WORLD PROFILE**

Date of Preparation:	041/1113
World Name:	Torrel
Location:	Old Expanses 2818
UPP:	C357A95-A

Physical Data:

Diameter:	5,072 km
Density:	0.60 standard
Mass:	0.037 standard
Mean Surface Gravity:	0.24 g
Rotation Period:	35 hrs, 1 min, 16 sec
Orbital Period:	290.49 days
Seasons:	4 of 72.625 days each
Axial Tilt:	36° 21' 33.2"
Orbital Eccentricity:	0.002
Satellites:	None
Surface Atm Pressure:	0.50 standard atm
Atm Composition:	Std nitrogen-oxygen mix
Atm Terraforming:	No
Hyd Percentage:	68%
Hyd Composition:	Water
Hyd Terraforming:	No

Temperature:

Base Mean Surf Temp:	16.2°C
Axial Tilt Modifiers:	+21.8°C, -36.3°C
Rotation Modifiers:	+10.5°C, -52.5°C
Latitude Modifiers:	4.5°C per hex row
Orbital Eccentricity:	±0.1°C
Weather Control:	Yes
Grnhouse Terraforming:	Yes
Other Modifiers:	None

Mapping Data:

Nbr Tectonic Plates:	1
Native Life:	No
Terrain Terraforming:	Yes
Major Continents:	1
Minor Continents:	5 (13 maj is., 12 arch.)
Major Oceans:	world
Minor Oceans:	world

Seismic Data:

Stress Factor:	24
Notable Volcanoes:	65 (on all continents)

Resources:

Natural Resources:	None
Processed Resources:	Agricultural, Agroprod.
Manufactured Products:	Hvy Equip. Electronics

Population & Ports:

World Population:	51,620,000,000
Primary City:	Torrel Oro; 40.55 bil; C
Secondary City:	Winchester; 6.63 bil; D
Tertiary Cities:	Grobiv; .8 bil; E
	Kuurt;. 78 bil; E
	Ronmot; .71 bil; F
	Navolato; .66 bil; F
	Norris Arm; .61bil; F
	Plainspring; .36 bil; G
Orbital City:	Selwyn; 17,500; C

***GRAND CENSUS* CULTURAL PROFILE**

World Name:	Torrel
Location:	Old Expanses 2818
UPP:	C357A95-A

Cultural Profile:

Progressiveness-Att:	Progressive
Progressiveness-Act:	Indifferent
Aggressiveness-Att:	Unaggressive
Aggressiveness-Act:	Neutral
Global Extent:	Discordant
Interstellar Extent:	Friendly

Technology Profile:

High Common:	A
Low Common:	8
Energy:	A
Computers/Robotics:	9
Communications:	9
Environmental:	C
Land Transport:	A
Water Transport:	A
Air Transport:	A
Space Transport:	A
Personal Weapons:	A
Heavy Weapons:	A
Novelty:	C

Government Division of Authority:

Representative Auth:	Executive (Several Councils)
	Judicial (Several Councils)
Other Authority:	Legislative (Several Councils)

Law Level:

Overall:	5
Weapons:	3
Trade:	C
Criminal:	7
Civil:	5
Personal Freedom:	3
Uniformity:	Territorial

Religious Profile:

Numerous religions are observed by billions of adherents on Torrel. The government permits complete freedom of worship and no State religion exists.•

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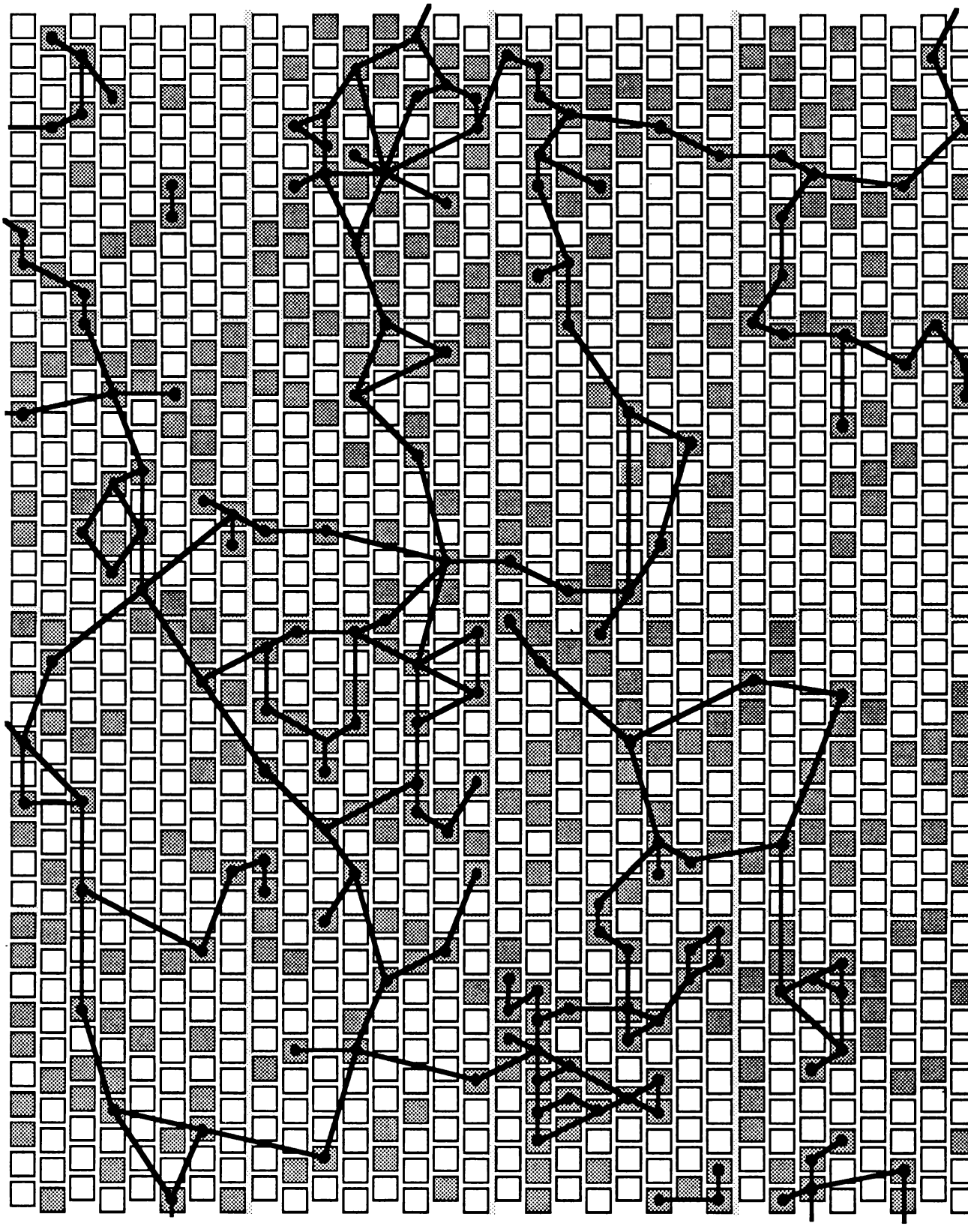


Xboat Routes of Old Expanses Sector

Old Expanses Sector

LIBRARY DATA OF THE SECTOR

—by Nancy Parker and Robert Parker

Dethenes	Quinoid	Ahrhi	Rusco
Srys	Jayna	Twenty-One Worlds	Ile
Thoe-zennt	Shenk	Karse	Vendtup
Nicosia	Sarid	So Skire	Bascoj

Old Expanses: Subsector Key

Thorell/Nicosia (0231 X510276-0): Red Zone. The native race of Thorell is well adapted to its near-vacuum world, although archaeologists and geologists maintain the atmosphere was thicker at one time. Thorellians are a burrowing race, built long and low, with six limbs. They can see an electromagnetic spectrum from green through microwaves.

Many interconnecting burrows make up a city, which is synonymous with a Thorellian nation. There are at least 300 such nations plus smaller groupings and loners on the planet. Territorial disputes are common but usually nonviolent.

Thorell is a Scout Service red zone, interdicted until the natives progress sufficiently to enter the interstellar community.

Olxber/Srys (0312 C000505-B): Home of the famous AK mercenaries, this asteroid belt is divided among several influential families. Each family maintains a small private army (perhaps 500 men) to guard its own interests in the mineral-rich belt, as well as for hire outsystem. Those who hire out are not only skilled in weightless maneuvering, but are also trained in artificial grav fields up to two gravities to maintain their physical condition.

Most such groups are equipped to the limits of the tech level 11 facilities available. Olxber mercenaries are justly famous throughout their subsector, though the AKs are the only group widely known beyond the subsector.

Strat/Srys (0318 A9BA8A8-F): The need for head-to-toe protection when out in the air or ocean of Strat has produced a curious cultural twist. People wear head-to-toe clothing at all times, even indoors. Anything that necessitates opening or removing parts of this clothing is considered private and even obscene. One never eats in public, for instance. Medicine is an unpopular profession because of the need for personal contact, and a great deal is done by mechanical means such as medibooths.

The king of Strat is a progressive, enlightened monarch who encourages offworld trade in every possible way. This does not include trying to change his own culture. Visitors need to conform to local custom or people simply will not deal with them.

Larspri/Dethenes (0408 X1B1000-0): Tiny, dense Larspri holds an atmosphere of hydrogen and carbon compounds only because it is fairly far from its primary. These react with the metals on the surface to produce corrosive and poisonous compounds. Its tiny hydrosphere is composed of frozen carbon dioxide at the poles.

This lump of matter would be good for nothing if it were rock, but it is almost pure metal. Scientists have speculated that it may be a chunk of a planetary core left after the planet was smashed by comets, or even a chunk of a burned-out dwarf star. Larspri is a rich source of metals from copper through the transuranics.

Due to the impossible conditions no one lives here, but 12 major companies have mining claims here which are worked by specially designed robots, impervious to corrosion.

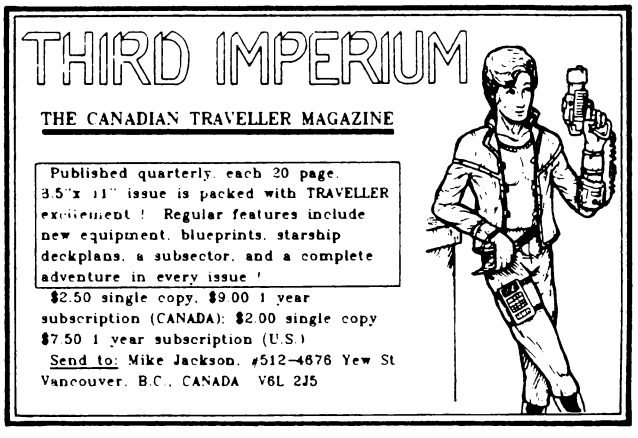
Vard/Srys (0714 X9BA997-7): Red Zone. Vard's people are packed into shallow-water arcologies. Their government is a veritable maze of agencies in charge of this and that, often overlapping, never simple to cope with. Because of their sympathies and active cooperation with the Solomani rebels since the last war, Vard has been interdicted by the Imperial Navy.

The planetary tech level has been falling steadily since contact was cut off, and the Scout Service predicts that soon the populace will not be able to repair or maintain the arcologies. The IISS has thus petitioned the Emperor for a lifting of the restrictions, lest they lead to genocide. The Navy takes a dim view of this idea. If anything, the interdiction has made the anti-Imperial attitudes worse over the years, but Vard would be hard put to menace the Imperium in its present condition.

Dorp/Ile (2511 B433100-9): Red Zone. Dorp was lightly populated in the 700's by colonists escaping from the constant international tension on nearby Bourj.

The population grew slowly and was quite content with the world. However, twenty years ago astronomers detected the first signs of instability in the star. The inhabitants were evacuated by the Scout Service and various merchant interests, leaving only a crew of astronomers in a jump-capable vessel, specially equipped to house them for years. They intend to observe the star until the last possible moment, gathering data not obtainable from a distance, and then jump clear.

The refugees were taken to Khar/Twenty-one Worlds, where they are assimilating nicely.•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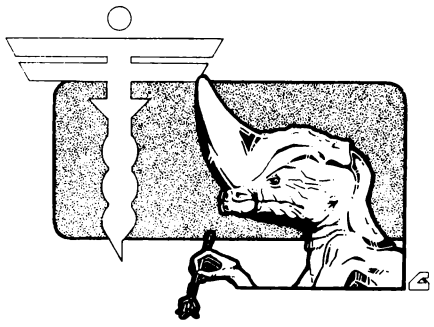

Replacement Body Parts: Prosthetics, Bionics, Regrowth and Cloning

MEDICAL DIGEST

—by Mike Jackson and Joe D. Fugate Sr.

Editors' Note: Portions of this article first appeared in the ***Traveller*** *fanzine* Third Imperium, *published by Mike Jackson.*

As medical technology advances, many options become available for the repair and replacement of damaged or lost body parts. As the title of this article indicates, patients have four major choices at higher tech levels, each choice having its own advantages and disadvantages. In this article, we examine the pros and cons of each option. Next issue, we will deal with the rules for including these high-tech medical techniques in your **MegaTraveller** campaign.

One other technique for gaining replacement body parts is that of transplants, which we will not discuss to any great degree here. Societies typically go through a phase in their medical development, circa tech level 7 to 11, in which organ transplants are a viable method for body part replacement. The difficulty, of course, is to find a suitable donor. (Incidentally, selling organs illegally between worlds is a high justice crime in the Imperium, punishable by death).

At tech level 9, practical prosthetics and regrowth techniques appear on the scene. By tech level 12, body to body transplant methods are completely obsolete, having been replaced by advanced prosthetic and regrowth techniques.

PROSTHETICS AND BIONICS

From the earliest of tech levels (circa tech level 1), nearly all sentient beings devise ways to replace lost body parts with artificial substitutes. At low tech levels, lost limbs may be replaced with anything from a peg leg to a plastic arm with a hook. At tech level 8, these replacement body parts, called prosthetics, also include artificial internal organs.

Both prosthetics and bionics are artificial, mechanical body part replacements. Prosthetics appear as mass-produced medical items as early as tech level 9. Bionics, on the other hand are individually custom designed to enhance the function of the original body part.

While high-tech surgeons consider prosthetics an essential item in their repertoire of body repair methods, the surgeon usually insists the patient give a good reason as to why a bionic part is called for. The surgeon must use both medical and robotics skill to design and install the bionic part. The patient, for his part, must make both a physical and a psychological adjustment: one part of his body is now "better" than the rest, and some patients suffer a crisis of self-esteem because of this subconscious comparison.

A leading difference between prosthetics and bionics is cost. Bionics are by far the most expensive of all the body part replacement methods in this article. Conversely, prosthetics are the cheapest, fastest, and most common method of body repair.

In all cases, a prosthetic or bionic body part weighs more than the original body part it replaces. When the mechanical part fails, having to deal with its excessive dead weight can be a strain on the rest of the body.

Here is a synopsis of prosthetic and bionic developments as technology progresses:

Early Prosthetics (TL 9-11): Beginning at tech level 9, computerized electro-mechanical limb replacements appear. Prior to this tech level, mechanical or electro-mechanical limb replacements do little more than barely replace the missing limb. From tech levels 9 to 11, however, the electro-mechanical limb replacements can perform most if not all of the basic functions of the missing original. On the down side, these early prosthetics are bulky, and need recharging often. Also, they move somewhat jerkily, mechanically, and often have an unnatural humming sound.

At these tech levels, the patient has his choice: looks or function. He can't have both. If he wants the prosthetic to look nice, he must give up some of its function.

Prosthetic Organ Replacements (TL 9-11): While artificial organ replacements first appear at tech level 8, they do not move into the mainstream of medical practice until tech levels 9 to 11. At these tech levels, most prosthetic organ designs are fragile and bulky.

The most significant artificial organ to appear in this period is the artificial eye. With the early nerve refusion techniques that appear at tech level 11, the artificial eye is one of the first artificial organs to totally replace the real thing in all manner of function.

Early Bionics (TL 9-11): From tech levels 9 to 11, bionic replacements are bulky, and unsightly. The patient has but one choice with a bionic replacement at these tech levels: function only. It may work great, but it never looks like much. The early bionics move with jerky, mechanical motions, and make obvious electronic or mechanical noises.

Bionic Organ Replacements (TL 9-11): Except for the sensory organ clusters (eyes, ears, nose, mouth), bionic organ replacements are largely a dream at this point.

Enhanced Prosthetics (TL 12-16): The advent of improved nerve refusion techniques in the late tech level 11 period paves the way for improved prosthetics at tech level 12. Coupled with the introduction of sophisticated pseudo-biological techniques, these wonders look and work "just like the real thing".

Most of the artificial nature of the replacement has disappeared. As the tech level continues to increase, any remaining artificial sound disappears and the limb movement becomes still smoother. By tech level 15 these improved prosthetics are indistinguishable from the actual body part.

However, this applies only to detection by normal senses. *All* prosthetics can be detected through x-ray viewing. Simple metal detectors can detect tech level 9 to 11 prosthetics; prosthetics also weigh more than the original body part at these tech levels. Beyond tech level 11, most prosthetics are constructed entirely of special plastics or ceramics, and can be detected only by a densitometer scan.

Prosthetic Organ Replacements (TL 12-16): All

major organs except the brain have some kind of artifical equivalent developed during this period. The replacements are generally quite reliable and compact.

Enhanced Bionics (TL 12-16): Tremendous advancements occur in miniaturized, pseudo-biological bionics from tech level 12 to 16. Many enhanced functions are available, and it is often difficult to distinguish a prosthetic limb from a bionic one, since both can appear quite similiar. However, bionics tend to be slightly heavier and a bit noisier than normal prosthetics.

Bionic Organ Replacements (TL 12-16): Bionic replacements are developed for all major organs except the brain. The bionic organ designs tend to be larger and more bulky than the original. This often requires that the patient minimize the number of bionic organs, or face a reconstruction of the organ area (head or torso) to allow for more space. Naturally, such a reconstruction is extremely expensive — and not without risk.

REGROWTH AND CLONING

By tech level 9, missing limbs can be regrown, and by tech level 11, damaged non-vital organs can be regrown in place. By tech level 13, new body parts of any kind can be selectively cloned from the DNA of any body cell.

Regrowth involves stimulating the body to regrow its missing part. Cloning involves taking one or more cells and growing a replacement body part in an artificial womb. (This is different from a full-body clone — see the sidebar.) The new biological part is essentially identical to the original in function. Limbs, once they have been retrained, are equivalent to the original in ability.

With both regrowth and cloning, the subject must wait for the biological replacement part to grow. Cloning is more convenient since the recipient is free to do whatever he wants during the growing period. The down side of cloning comes when the new part must be attached: complicated and expensive surgery is required. With regrowth, of course, the new body part comes automatically attached.

For example, the typical growing period for a new leg is about 800 days (27 months). Starting at tech level 10, growth quickening techniques shorten the growing period by a factor of 10 to 1. Thus, with growth quickening, the growing period for the new leg becomes about 80 days (3 months). Growth quickening reaches 100 to 1 at tech 13 — which means the time to grow a new leg becomes a mere 8 days at tech 13 or beyond.

As far as cost, regrowth and cloning both cost more than prosthetics, but are much cheaper than bionics. Regrowth and cloning both cost about the same for the growing of the new body part — but the surgery to attach the cloned body part is more expensive than the surgery to attach either prosthetics or bionics.

Here is a synopsis of regrowth and cloning developments as technology progresses:

Early Regrowth (TL 9-12): Originally developed at tech level 9, regrowth is a special process that allows an individual to regrow lost body parts. Regrowth at these low tech levels requires a hookup to special equipment. Through the application of electric current and special drugs, the body can be stimulated to regrow a lost limb over a period of many months. Unfortunately, this length of time generally restricts its use to limbs and sensory organs.

At tech level 10, growth quickening techniques allow compressing the regrowth period by a factor of about 10 to 1.

Regrowth at these tech levels requires the character to be bedridden in a hospital for the full period. For this reason, many turn to prosthetics — regrowth simply takes too long.

Internal Organ Replacements (TL 9-12): While internal organs can also be regrown, the patient must be hooked to expensive life-support equipment for the entire regrowth period.

Advanced Regrowth (TL 13-16): Breakthroughs in regrowth techniques allow the patient to simply wear a special biologically-decomposible implant that stimulates the regrowth. As the new body part grows, the implant slowly shrinks and finally flakes off when the new body part is completely regrown. The patient is thus free to pursue more or less normal activities during the regrowth period.

Growth quickening advances allow compressing the regrowth period by up to 100 to 1. However, to gain these rapid regrowth techniques, the patient must be bedridden in a hospital for the entire period.

Internal Organ Replacements (TL 13-16): Internal organ regrowth is more practical, with the advent of the portable life-support suit. The patient may actually perform limited activity during the internal organ regrowth period.

Cloning (TL 13-16): Selective cloning of individual body parts appears at tech level 13, largely due to the great advances in genetic research. Full-body cloning of complex lifeforms appears as early as tech level 10. But coaxing a single cell of any type to specialize and reproduce just the selected body part or organ requires a much greater understanding of the genetic "switches" in the cell. Thus, such selective cloning does not occur until tech 13.

The 100 to 1 growth quickening techniques available at this tech level aid the cloning process by drastically reducing the time the body part must spend growing "in vitro" inside the special artificial womb. This finally makes selective cloning practical because the shorter growth time greatly reduces the cost of the new part. In fact, the cost of cloning a new body part at 100 to 1 is less than the cost of an equivalent 10 to 1 quickened regrowth of the same body part.

The extra cost, risk, and complication comes when the newly cloned body part must be attached. The surgeon must perform complicated and expensive microsurgery to properly attach all of the body's nerve endings and blood vessels to the newly cloned part. Since a regrown body part is already attached, cloning turns out to be more expensive than regrowth when considering the entire process.

SPECIFIC GAME RULES

Are you beginning to see the possibilities that open up to your characters with these advances in medical technology? No longer does getting wounded in combat need to be the "end of the world" for your character.

Have you ever felt like your **Traveller** campaign was little more than "tech level 7 with starships?" With the new options suggested by this article, your **Traveller** adventures need never lack for high-tech possibilities again.

Next issue's "Medical Digest": specific step-by-step **MegaTraveller** rules for taking advantage of these high-tech medical wonders in your campaign.•

THE PROBLEMS OF BEING ARTIFICIAL

Many difficult issues are raised with the advent of technology high enough to allow science to "tamper" with biological beings. Here is how the Third Imperium has dealt with these difficult issues.

Cyborgs: Technically speaking, an individual with a high percentage of computerized electro-mechanical body parts is a "cybernetic organism" or "cyborg." Many protocols among the Imperial nobility consider "cyborg" to to be a vulgar and slanderous term. Using it in polite company to refer to anyone, especially someone among the nobility, may have serious consequences.

About 1% of the Imperial population has at least one artificial body part. Most individuals with a high percentage of artificial body parts are current or ex-military personnel. Occasional special agents have deliberately been made into a cyborg, but this is rare.

The Imperium, Vargr, Solomani, and Aslan are all major users of prosthetics. Zhodani, Hivers, and K'kree focus on regrowth and cloning. Droyne use all three equally.

Many corporations deal in prosthetics and bionics, most notably SuSAG, Ling-Standard Products, and Cybertech — the latter is known especially for its high quality bionic parts.

Clones: A clone, or more specifically a full-body clone, is an "offspring" created from a single cell in the laboratory, rather than through the normal reproductive process. Such an offspring is a genetic duplicate of the single donor, and thus has only one parent. In all other respects, a full-body clone is identical to a normal offspring; the real oddity is the unnatural manner in which the offspring was conceived.

Crude full-body cloning of lower life forms first occurs at tech level 8. The ability to reliably create full-body clones of higher lifeforms (such as humans) doesn't occur until tech level 10. The donor's cell is placed in an artificial womb — and the clone grows at the same rate as any normal offspring. At the end of the normal gestation period, the clone is removed from the womb. The result: a normal, healthy, newborn baby, but with only one parent, and thus genetically identical to that one parent.

Such clones have a physical potential identical to the original — the first 4 digits of the UPP are almost always the same. (A character that spent years in weight training, or practiced abysmally poor eating habits would, respectively, be better or worse than his clone.) But that is the end of the similarity: personality and abilities are often quite different, as the cloned child will grow to adulthood just as would any normal child. This technique, while quite expensive, does allow a sterile or mateless individual to have a child.

Using growth quickening techniques (also a typical tech level 10 development) an "adult" full-body clone (roughly equivalent to 20 years of age) can be grown in an artificial womb in about 2 years. Growth quickening rates beyond a 10 to 1 ratio are not achieved until tech level 13. At tech level 13, the growth quickening ratio can reach as high as 100 to 1. Thus at tech level 13 and beyond, an "adult" full-body clone can be grown in an artificial womb in about 2 months. It is important to note that such a clone, although possessing an adult body, will have the mind of a newborn baby, since it has had no exposure to the outside world. The clone must be taught and educated, just as any normal child.

> "Any *sentient lifeform* within the Imperial borders, regardless of its origin, is a protected being, and thus a *citizen* of the Third Imperium."
>
> — Cleon Zhunastu, 17

But, just because the adult clone's mind is no more developed than a newborn baby, most worlds consider that commandeering a clone's body is just as demented as taking similar advantage of a newborn baby's body.

"Is it right to allow someone to have a child for the express purpose of supplying spare body parts? The Third Imperium calls this a highly criminal act. Using a full-body clone for spare parts is no different. It is a crime of the highest degree." — Cleon Zhunastu, 17.

In any event, a full-body clone the size of a newborn child can costs up to a 100,000 credits to produce. Adult full-body clones are even more expensive. In the final analysis, natural offspring are a much cheaper way to go.

Even so, full-body clones are not unheard of in the Imperium. While some high-tech worlds legislate against them altogether, many high-tech worlds allow a full-body clone as long as it is not grown beyond the normal newborn stage. On a few high-tech worlds, up to 2% of the population started life as an "adult" full-body clone — on many of these worlds a full-body clone is considered a most honorable way to pass on 100% of your physical genetic traits. A few protocols among the nobility *require* the noble title be passed on to a full-body clone offspring.

At tech level 16, the ability to develop adult clones, complete with the basic memory patterns of the original, becomes a reality. This is not yet the abilty to transfer one's consciousness into the clone, just the ability to make "memory copies". In such clones, the first 5 UPP statistics are identical to the "parent." These techniques have just started to appear in the Imperium within the last 50 years, and they are exorbitantly expensive (millions of credits).

To date, the Imperium considers such clones to be quite illegal, since this is "tampering with the mind of a sentient lifeform, similiar in concept to psionics" according to a ruling made by Emperor Paulo III in 1070.

Humans and Hivers are the only races to use clones to any degree — Aslan feel it is dishonorable, K'kree find such a "flesh-growing" technique most distasteful, and Vargr just don't bother.

Androids: An android is technically a "synthetic man, created from biological materials." Androids, a combination of cloning and genetic engineering, are rare in the Imperium. Literally, they are artificially created organic beings.

At tech level 14, DNA chains can be specifically tailored to create desired characteristics, and the altered being can be grown in a modified artificial

womb. At tech level 14, such androids have a natural lifespan of 10-15 years. As technology advances, they gradually become less and less susceptible to premature sickness and aging.

Androids can take any form, from monster to midget to normal size, limited only by the natural constraints of biology. However, they are almost always incapable of reproduction — this is imposed not by technology but by the laws of most high-tech worlds. Sometimes, they are even identified by special tattoos or markings.

In Imperial year 17, Cleon Zhunastu declared, "Any *sentient lifeform* within the Imperial borders, regardless of its origin, is a protected being, and thus a *citizen* of the Third Imperium." Under this definition, androids are Imperial citizens. As an aside, it is interesting to note Cleon explicitly stated that robots are not citizens of the Imperium. "One may argue that an intelligent robot might be sentient," stated Cleon, "but it is definitely not a lifeform."

However, some high-tech worlds that do not legislate against androids generally regard them to be mere property. Even so, some of these same worlds do provide for androids to be officially released, and to gain the rights of normal citizens. But this is far from universal.

Although the Imperium does not agree with the concept of an android being property, another fundamental concept of the Imperium is that it rules the space between worlds, but not the worlds themselves. For this reason, regarding an android as property is not a problem in the Imperium's eyes until the issue involves more than one world. Thus, interstellar commerce in androids is expressly illegal in the Imperium.

But just because it's illegal doesn't mean it can't happen. In fact, one notable case of illegal commerce in androids in recent years was that of the sector-wide corporation, Imperial Geneering, LIC of Massilia Sector.

The elimination of such barbarism was one strong incentive in favor of an interstellar empire like the Third Imperium.

In the 1090s, Imperial Geneering (IG) secretly created and sold several tech 15 androids to several underground organizations on nearby worlds. Once the news of IG's misconduct reached the courts of the ruling nobility in Massilia Sector, their Imperial charter was revoked, and their assets were liquidated. There are rumors that some IG funds came, via a circuitous means, from the household of Margaret, but these accusations are unsubstantiated.

Here are the androids which Imperial Geneering secretly created and sold in interstellar commerce:

A.G.E. (Android Genetic Engineering) Project Type 2: "Super-human." This type of android is similiar to a normal human, with the exception that the first four statistics(strength, dexterity, endurance, and intelligence) are all level F. Available in both male and female configurations, for a cost of MCr1.5. Of the 103 that were created, 71 have been accounted for. The whereabouts of the other 32 are unknown.

A.G.E. Project Type 3: "Kobold." This android is one-meter tall, with stats of A7F5 — and IR vision. Created as mining labor for hazardous conditions, 1167 were created, 992 of which were sold to mining companies for MCr0.8. The other 175 are unaccounted for.

A.G.E. project Type 5: "Monster." Only one of this type of android was ever created, and its whereabouts — or even continued existence — is completely unknown. Three meters tall, looking like a cross between a man and a machine, A.G.E. 5 has a UPP of KKKFA0. The creature was sold to an unknown party for MCr10.

The Hivers are known to have experimented with a few androids, and archaeological evidence indicates the Ancients used them regularly.

In the Shattered Imperium: With the current state of affairs in the divided Imperium, many of the prohibitions discussed above may no longer apply. If the local ruling power doesn't happen to agree with the Imperium's stand that "Any *sentient lifeform* within the borders, regardless of its origin, is a protected being, and thus a *citizen* ", then tragically, any number of atrocities may exist. The elimination of such barbarism was one strong incentive in favor of an interstellar empire like the Third Imperium. These are dark times for the rights of sentient lifeforms, and especially so-called "artificial" ones.•

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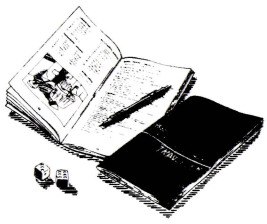


Adventuring in the Shattered Imperium

THE GAMING DIGEST

—by Joe D. Fugate Sr. and Marc W. Miller

The players' ship has just landed at the starport.

"The starport seems to be in a state of confusion." states the referee. "As you leave the ship, you are met by several helmeted, black-garbed men armed with fusion rifles.

They stop you and their leader barks out a question: 'Offworlders! To which Imperial faction do you claim allegiance?'"

HIGH-TENSION EXCITEMENT

As the above example illustrates, the new shattered Imperium background can make for some exciting times. More than ever before, there are reasons to adventure, and especially reasons for high-risk, high-reward adventuring. In this issue, we examine how to develop adventures in the new shattered Imperium background of **MegaTraveller**.

START AT THE BEGINNING

An obvious first question when dealing with the new **MegaTraveller** rules is: what's the current Imperial date? The answer: 1120. It's been four years since Strephon was killed in 1116. When we refer to "today" in the *Imperial Encyclopedia*, we mean "in 1120." We follow that convention here in this article.

Today, four years after Strephon's untimely death, there is still no clear emperor. The self-professed "acting emperor" Lucan has tried to strip many sectors of their naval fleets and military resources: resources which Lucan claims he needs to utterly destroy "that usurper Dulinor". Several of the archdukes in charge of these sectors have reluctantly declined Lucan's demands rather than leave their systems defenseless against raiding bands of corsairs, marauders, and pirates.

Lucan, in a fit of rage, has ordered the Imperial fleets under his command to attack the "traitors", alienating these regions even more. Several such areas have declared themselves to be autonomous, rather than subject themselves to Lucan's madman politics.

The history of the last four years from Strephon's assassination (1116) until now (1120) can be found in GDW's *Rebellion Sourcebook*, which should be available by the time you read this. This book, loaded with background and intrigue, is a must for any referee who wants to set adventures against the current **MegaTraveller** background.

In this article, we will not go into any further historical details on the rebellion. For that, get the *Rebellion Sourcebook*. Instead, our purpose here is to discuss for the referee's benefit some of the game-playing implications of the current background.

How are the worlds of the Third Imperium affected by the Imperium breaking up? When the characters land on a world, what are they likely to find? To answer these questions, let's begin by reviewing what the worlds were like before Strephon was assassinated.

WHERE WE'VE BEEN

Prior to 1116, the general political climate among the member worlds was one of "lackadaisical complacency." Local officials expected the Imperial nobility to watch out for the emperor's interests as a matter of course, and few local officials dared challenge such interests. Besides, the Imperium rarely interfered with local politics, and when Imperial officials did step in, their requests were rarely onerous.

How are the worlds of the Third Imperium affected by the Imperium breaking up? When the characters land on a world, what are they likely to find?

Consider the words of Baroness Evan Sessori, Grand Zamun of the local Deneb World Council on Deneb/Usani (Deneb 1925). In 1113, shortly after the Second Battle of Anarsi (where several Vargr corsair fleets were soundly routed by Imperial forces), Baroness Sessori stated: "Only villains and criminals dare challenge the Imperium's authority to rule the spacelanes." Her words reflect well the attitudes of the time found across the worlds of the Imperium.

Minor space battles such as the Battle of Anarsi were fought from time to time between the Imperium and a foolhardy pirate or corsair band. But the only star-spanning space battles in the last several centuries were the frontier wars in the Spinward Marches with the Zhodani.

As for the worlds themselves, the Imperium has always allowed local disputes and wars to seethe virtually unchecked. In most cases, the Imperium has simply looked the other way. Only when the dispute showed signs of involving multiple worlds would Imperial forces step in.

From a game-playing point of view, in the last ten years of **Traveller's** existence, the Imperium has been a vast, benevolent backdrop to adventures. Any political maneuvering has been on the local level between local officials or

petty Imperial officials. Details about the larger role of nobility in Imperial society and the broad macro-politics of the Imperium have never been discussed.

WHERE WE'RE GOING

With the current rebellion backdrop, many things have changed, while others have not.

As the news of Strephon's assassination spread throughout the Imperium, it had a varied effect on the member worlds. On most worlds, it had little effect. Things went on as they always had — for a time. On a few worlds, sweeping changes or even political upheaval occurred almost overnight. Once it became apparent that there was no clear selection for a new emperor to succeed Strephon to the throne, a period of nervous uncertainty began to set in.

The uneasy political climate had negative effects on interstellar commerce. Pirates and corsairs became bolder — which made things still worse for business. The uncertainty stretched on and on; the weeks became months, then the months became years. Imperial fleets even turned on each other, ordered by the self-proclaimed Emperor Lucan to do so. Self-seeking bureaucrats decided the time had come to vie for power. Bedlam began to rule entire stellar regions.

The ripples of confusion and uncertainty have been felt throughout the Imperium. Sometimes no one knows who's in charge. Other times, the one in charge rules with an iron fist, and vows to crush any who oppose him. On top of all of this, several of the domain archdukes have declared their domains to be independent of the rule of the old Imperium. Factionalism is at an all-time high in the Imperium, with each faction stating their loyalty to a given leader.

But society is not at an end — not by any means. Merchants still haul cargo from world to world. Scientists still conduct research. Interstellar Scouts still survey and explore. Naval personal still patrol the spacelanes. Some of the reasons for doing these things may have changed, but the activities remain much the same.

TRAVELLING IN THE SHATTERED IMPERIUM

In a region close to a faction's base of power, it is probable that a casual traveller will encounter fleets loyal to that faction. Since one of a fleet's most important jobs is patrolling its territory, such fleets will challenge and inspect ships passing through their territory. Armed vessels entering the fleet's territory are likely to be attacked. It is possible that travellers will encounter elements of a faction's fleet beyond its controlled territory, although the possibility of this drops off with distance.

High-population worlds which have not declared their loyalty to a ruling faction and which are close to its base of power are probably under siege. The besieging fleets use their power to prevent ships from approaching or leaving the besieged world.

Analyzing a sector map can provide a variety of important destinations to which adventurers can go. The thrill of the journey is what is important, and the preparation along the way helps make the adventure all the more worthwhile.

High-population worlds are the key to the rebellion. Although they represent less than 10 percent of the Imperium's worlds, they hold 90 percent of its population. A mission to a high-population world can be the key to an important operation by a faction. Other important destinations include depots, naval bases, and devastated worlds.

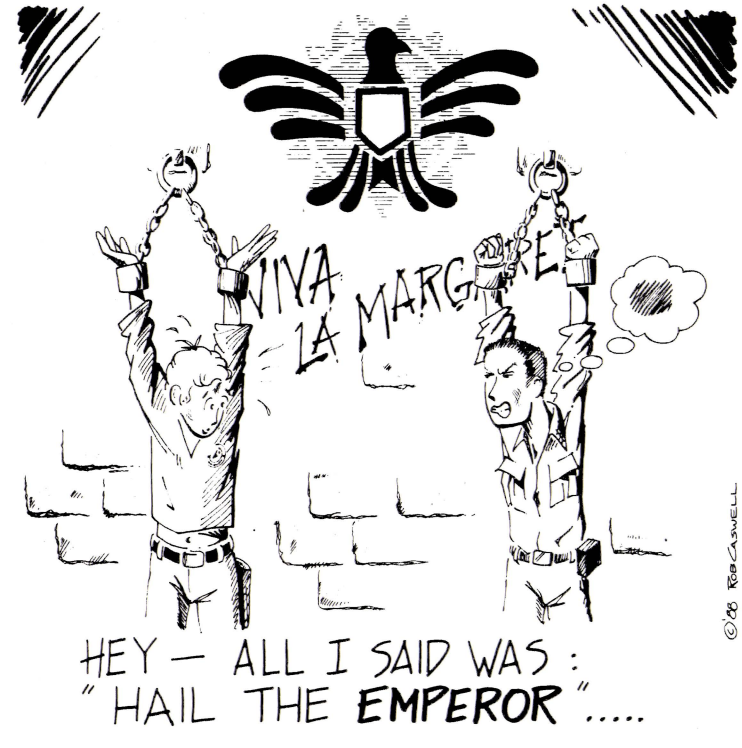
WHAT IT ALL MEANS

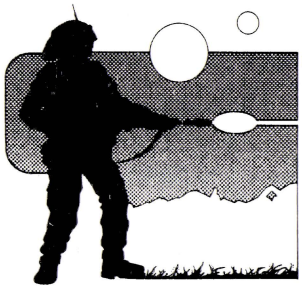
From the referee's point of view, what does all of this mean? How does this affect adventuring?

First, the referee has a new freedom to "wing it" in an adventure, totally unlike any opportunities that existed before. The players can now legitimately come out of jump right into a roaring space battle between massive starcruisers on both sides. Perhaps the players may land on a world, only to find it's not the same place it was last week — this week the locals imprison offworlders who are from the system that's now "on the other side of the border".

Suddenly, the stakes are much higher too. That scientific mission into the jungle to find the legendary lost city of amazing technological wonders may find useful items that can help the ruling faction of the region win their battles against opposing factions. Perhaps the faction's Scouts must sneak into an enemy's system undetected to get valuable reconnaissance information for the next battle.

The list goes on and on. The adventure possibilities have at least doubled, because all of the old reasons for adventuring still exist (the Imperium is, after all, a *big* place), and the rebellion has added many new possibilities to the list.•





The Traveller Arsenal

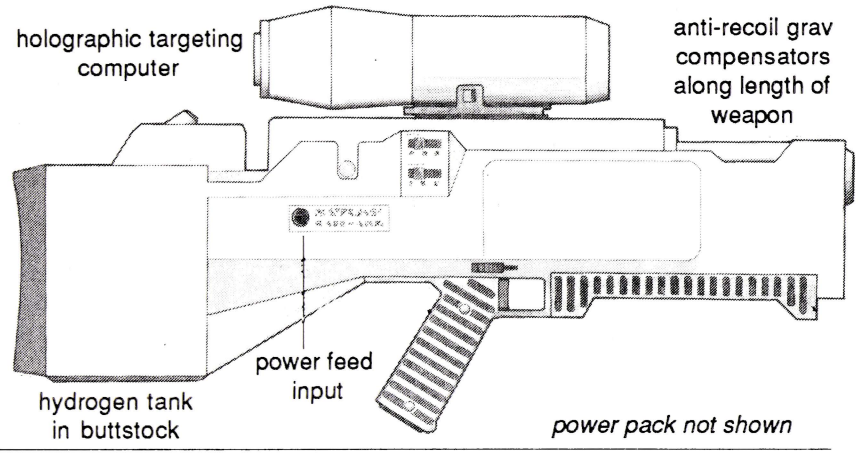
ILLUSTRATED TRAVELLER HARDWARE

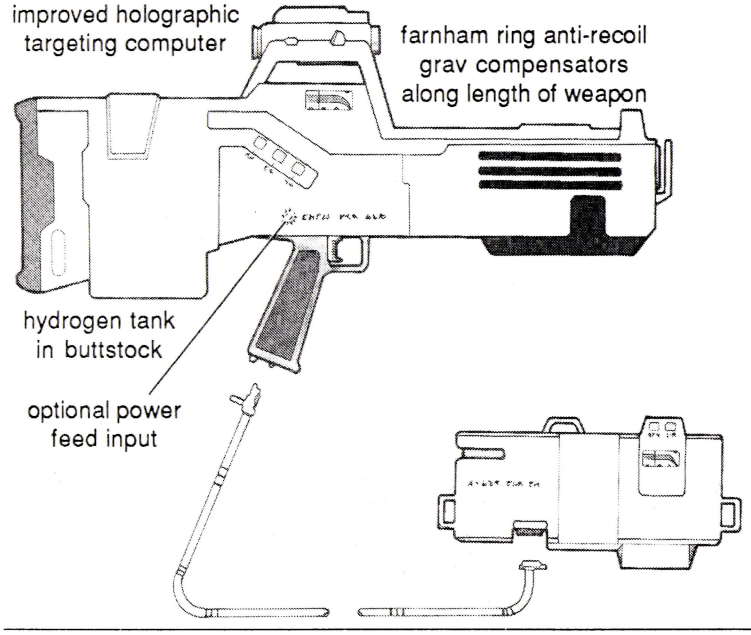
—by Karl Martin

FGMP-15
(Fusion Gun, Man Portable)

An advanced development of the PGMP-14 and FGMP-14, the FGMP-15 retains the generated plama bolt long enough to allow a fusion reaction to begin. Battle dress is required in order to fire it. A power pack is also required (not shown).

When fired, the FGMP-15 emits a blinding flash and a deafening roar.


holographic targeting computer
anti-recoil grav compensators along length of weapon
power feed input
hydrogen tank in buttstock
power pack not shown


improved holographic targeting computer
farnham ring anti-recoil grav compensators along length of weapon
hydrogen tank in buttstock
optional power feed input

FGMP-16

A more advanced version of the FGMP-15, the FGMP-16 is smaller and lighter, but every bit as deadly. Unlike the FGMP-15, this more advanced weapon does not require the firer to wear battle dress.

The FGMP-16 power pack, smaller than the FGMP-15 power pack, can be worn either on the abdomen or the small of the back (harness straps not shown).

Although the FGMP-16 exhibits a significant size reduction over the FGMP-15, the FGMP-16 is just as deafening when fired.

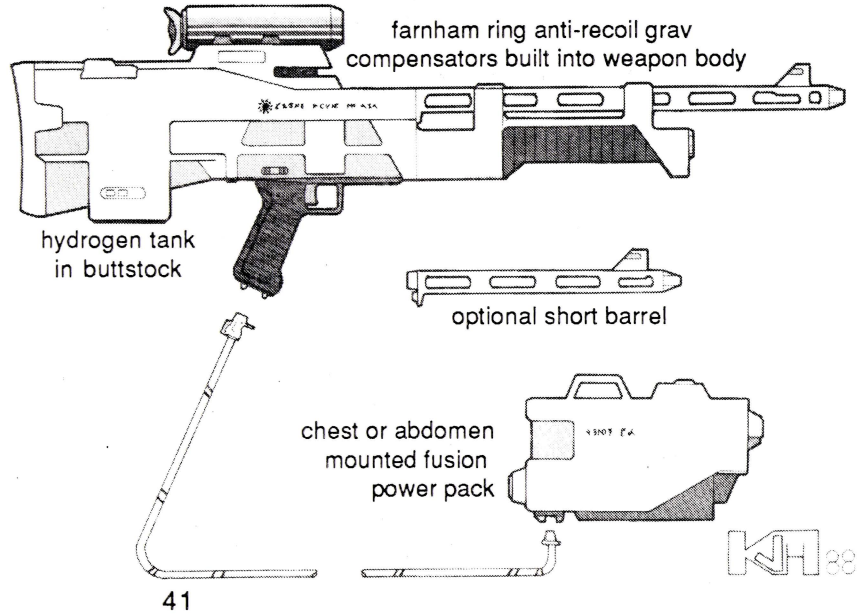
chest or abdomen mounted fusion power pack

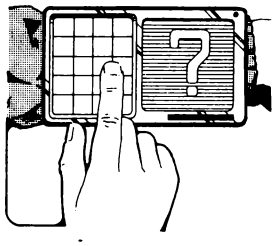
Plasma Rifle

The ultimate tech level 16 development of the portable plasma weapon, the plasma rifle is a highly portable, and quite deadly weapon. The plasma rifle is descended from the awkward and bulky PGMP- 14.

Like the FGMP-16, the plasma rifle is designed to be used without the need to wear battle dress.

An optional shorter barrel is available for the plasma rifle, but using the short barrel makes it very difficult to use the weapon for pinpoint fire since the plasma beam is less focussed.


farnham ring anti-recoil grav compensators built into weapon body
hydrogen tank in buttstock
optional short barrel
chest or abdomen mounted fusion power pack



Traveller Q&A

OFFICIAL ANSWERS TO YOUR QUESTIONS

Traveller Q&A provides answers to questions from readers on various aspects of **Traveller**, **MegaTraveller**, and **2300AD**. If you have a question you would like to have answered, send it to: Digest Group Publications, Q&A, 8979 Mandan Ct., Boise, ID 83709. We will publish the best of these questions and answers in this column. (*Editor's Note: We especially need **2300AD** questions. If you have any questions on **2300AD**, by all means, send them in.*)

Every single answer published in this column is seen and approved by Marc W. Miller, the leading designer of **Traveller** and **2300AD**. We want to stress to our readers that anything appearing in **Traveller Q&A** is *official* unless explicitly stated to be a variant.

Are brownie points used only during character generation, or do they carry into play? — R. I.

Brownie points are a form of abstract "role-playing" to be used only during advanced character generation. We never intended them to be used after the character is generated. —*Joe D. Fugate Sr.*

Are player characters allowed to choose any weapon (like an FGMP-15) when they receive "weapon" as a mustering out benefit? — R. I.

Although not explicitly stated in the rules, the answer is hinted at on page 15 of the *Players' Manual,* under "Homeworld Limitations" as applied to weapon skills.

Player characters can choose any weapon that is not greater than their character's homeworld tech code, and is also within the homeworld's law code. Rogues, Pirates, and Law Enforcers can select weapons that are one law code lower than their homeworld. Nobles, who are not subject to any homeworld restriction, can select any weapon.

Remember that using a weapon without skill increases task difficulty by one level (see the *Referee's Manual,* page 15, under "Notes About DMs"). With the advent of the included skills (handgun, rifleman, and so on), player characters in **MegaTraveller** no longer have an automatic skill level-0 in all weapons. So even if you get an FGMP-15, you probably can't hit the broad side of a parked air/raft with it.

This easily takes care of many opportunities to select an FGMP-15. —*Joe D. Fugate Sr.*

Some weapons listed in MegaTraveller have a penetration of zero (0).Is this a mistake?—R. I.

A penetration of 0 is not a mistake. A character or animal with no armor has an armor value 0, and the minimum armor value for a craft/robot is 1. Also, because of the way range attenuation reduces penetration, the penetration value for many weapons reaches 0 at their extreme range — so the following comments also apply to them. See "Penetration and Damage" on page 70 of the *Players' Manual.*

A weapon with a penetration of 0 is only effective against unarmored characters or animals. In this case, the weapon penetration equals the target armor value (both are 0). By default, then, a successful hit gives a *low penetration* result, so the weapon inflicts 50% damage.

If the target has an armor value of 1+, a penetration 0 weapon rarely does any damage. In this case, the weapon gets a *zero penetration* result, giving just 10% damage.

What is perhaps not as obvious is what a weapon with a penetration value of 1 or more will do against a target with an armor value of 0. In this case, no matter what the weapon's penetration is, it always gets a *high penetration* result — which means it inflicts 100% damage.

Armed **MegaTraveller** combat is not a pleasant situation for unarmored targets. —*Joe D. Fugate Sr.*

The treatment of danger space, group hits, and autofire is confusing. The task roll to hit collateral/adjacent targets (or avoid being hit) is not defined in either the group hits or automatic weapons fire rules. — R. I.

Mixing and matching the additional direct fire rules can get a bit confusing at times. Throw in rapid fire, line of fire, and pinpoint hits, and a single fire attack may seem more like the attack of an entire squad.

If the rules seem unclear, just let common sense guide you; work through a combination attack in a methodical manner. As the referee, when faced with a potentially confusing combination fire attack, you'll save yourself a lot of headaches if you always, always, *always* determine a *single primary target* before you begin resolving any hits.

Once the single primary target has been identified in a combination attack, it remains the primary target for the entire combination attack. If the firing unit wants a shifting primary target, then he is conducting rapid fire instead.

Once the single primary target has been selected, resolve a combination attack by starting with automatic fire hits. Automatic fire weapons give the firing unit additional "bonus attacks". Roll a "to hit" task on the primary target as normal, then roll an identical "to hit" task for each adjacent target (player's choice), up to the number of autofire targets possible. The firing unit has considerable freedom when specifying which adjacent targets — the attacking unit may actually apply *all* of its autofire attacks to the primary target if it wants to, *as long as* no other potential targets exist along the line of fire in the same range band. In any case, each autofire attack requires its own roll.

The line of fire rule also comes into play here. A good way to use the line of fire rule with autofire is to make the closest target in the line of fire the *default* primary target, with all other targets in the line of fire becoming adjacent targets. Any leftover autofire attacks (after applying at least one hit roll to each target in the line of fire) can be applied to laterally adjacent targets. In any event, leftover attacks should prefer the primary target for remaining unused attacks.

This leads us to a concept of "preferred target precedence." A preferred target should take more hits than any other target. The preferred target precedence for autofire targets is:

1. Primary target;
2. Targets adjacent to the primary target and in the line of fire;
3. Targets adjacent to the primary target and *not* in the line of fire.

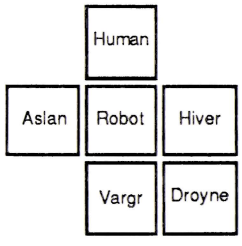
Put another way, the primary target (item 1) should never take fewer autofire hits than adjacent targets in the line of fire (item 2), and targets in the line of fire should never take fewer autofire hits than targets not in the line of fire (item 3). If the attacker wishes to violate this precedence, require exceptional success for each "to hit" roll which violates it. The hit reverts to standard precedence if exceptional success is not achieved.

Danger space represents how much the weapon "splatters" or "sprays" when it hits; that is, what collateral damage the weapon does to nearby targets when it hits the primary target. These collateral hits are known as *group hits*. All units in a weapon's danger space are subject to group hits. Danger space is always expressed in meters.

To determine the danger space in squares, divide by the distance scale being used and round 0.5+ fractions up. The result indicates the number of squares (including the primary target square) to which the danger space extends. The danger space extends in all directions from the primary target square.

The example below illustrates how all of these concepts work together in a combination attack.

Example: In 1.5 meter scale combat, a character is firing an assault rocket launcher (ARL) with HE ammo at the group shown below:



Character with Assault Rocket Launcher

The ARL has both autofire targets and a danger space. What do we do?

• Ask the player what he's shooting at (his preferred primary target), to determine the line of fire.

"The robot," replies the player.

• Check the line of fire. In this case, the Vargr and human are also in the line of fire. Logically, the closest unit becomes the default primary target, which in this case is the Vargr.

The player objects. "I'm shooting at the robot!"

• We require the player to roll exceptional success on his attack in order for the robot to be the primary target, since this violates the target precedence. Otherwise, he hits the Vargr as his primary target (line of fire).

The player gets exceptional success — he hit the robot as his primary target.

• The robot is now the primary target for the remainder of this autofire attack. The player still has two autofire targets left. He's hit the robot (the primary target) with an attack, so now the player rolls attacks on the adjacent targets in the line of fire, if he so desires. What does the player want?

"Another on the robot," replies the player.

• This is fine, since the robot is now the primary target. But the player still must roll exceptional success; otherwise, line of fire supersedes and he hits the Vargr instead.

The player misses the roll completely — he doesn't hit anything.

• The player has one last autofire hit roll left. What's his target?

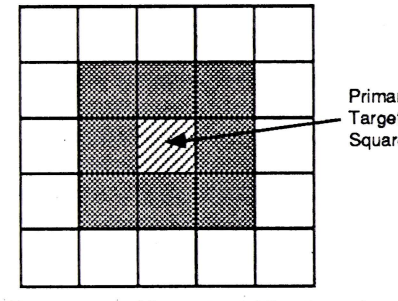
"Last one on the robot," replies the player.

• Again, we state the player must get exceptional success, otherwise he hits the Vargr.

A hit — but not exceptional success. He hit the Vargr.

We evaluate the penetration for each and now apply damage. That takes care of the autofire hits. What about the danger space portion of the hits?

• The danger space of the ARL is 3 meters. Dividing by 1.5 meters, we get a danger space of 2 squares in all directions from the primary target square:



ARL Danger space of 2 squares at 1.5 meter scale

The first autofire hit, as you recall, hit the robot.

Since each round explodes when it hits, also roll for a group hit (use the same "to hit" task we've been using all along) on the human, the Aslan, the Vargr, the Hiver, and the Droyne (all 1 square distant from the Robot). The penetration of any successful hit is halved (see the *Players' Manual*, page 73, "Group Hits").

The last hit struck the Vargr, so we measure the danger space for group hits from the Vargr. This means we roll for a group hit at one-half penetration on the Aslan, the Robot the Hiver, and the Droyne — which are all 1 square distant from the Vargr. Since the human is outside the two-square danger space centered on the Vargr, the human takes no hits.

I hope this explanation and example helps clear up your confusion. The keys are: use common sense to combine the various rules, and take it a step at a time. — *Joe D. Fugate Sr.*

The prices for the non-medicinal drugs are not given in the *Imperial Encyclopedia*. What are they? — R. I.

We neglected to include the non-medicinal drug prices. Here they are:

Drug	*Per Dose*
Slow Drug	Cr500
Medical Slow	Cr100
Fast Drug	Cr200
Combat Drug	Cr750
Anagathics	Cr20,000
Truth Drug	Cr5,000
Slow Drug Antidote	Cr600
Fast Drug Antidote	Cr900

If you have any pre-**MegaTraveller** rules set for Traveller, you will also find these drug prices listed there. — *Joe D. Fugate Sr.*

Typical Probe Array

Atmospheric Probes

Propulsion...

Semi-rigid four-cell helium balloon

Physical Sensors...

Temperature, pressure, wind speed, humidity, laser chromatography (elemental analysis), radioactivity, electromagnetic energy (infrared through X ray)

Life Science...

Mix atmospheric samples with isotope-tagged nutrients; sterilize and repeat

Mix isotope-tagged microorganisms with atmospheric samples; sterilize and repeat

Pre-sterilize atmospheric samples and mix with isotope-tagged nutrients; re-sterilize and repeat

Superconductivity electron phase change detection on atmospheric samples (detects chemical activity) — sterilize sample and repeat

Mobile Surface

Propulsion...

Tracks (maximum speed: 30 kph)

Physical Sensors...

As atmospheric probe with this addition:

Seismic charge launcher and imaging to detect subsurface geology

Coring drill to allow for retrieval of subsurface material (maximum depth: 30 meters)

Life Science...

As atmospheric probe except samples can be atmospheric, surface soil, or subsurface material

Static Surface

Propulsion...

None

Physical Sensors...

As mobile surface with ability to retrieve core samples to a depth of 200 meters (max vertical deviation : 30°)

Life Science...

Same as mobile surface

Life science experiments repeatable 6 times

Core samples may be retrieved 10 times

All probes use thermal isotope power plants which present a radiation hazard if opened

Exploration: American Style — Part 2

— by David McCoy and Tom Peters

Part 1 of this article, in the last issue, dealt with recent exploration developments within the American Arm, the institutions behind this exploration, and the initial spaceborn component of exploring new systems.

"The only practical reason for exploration is the potential for colonization. But that's not why we do it." *Notes from Icarus* — Leona Washington Chicago — 2268

Exploration carries a fiendishly high price tag, and behind every exploratory effort exists the economic pressure to discover new vistas of resource for an ever-expanding human civilization. Often the motivations of exploration personnel are purely scientific or philosophical, but the bottom line is that planets which present no potential for resource exploitation don't get explored.

If initial orbital surveys portray a world of some promise, unmanned probes will be dispatched to the planet by the research vessel prior to its departure from system. When a vessel returns weeks or months later to continue research, it will retrieve the probe's recorded data. Of particular interest at this point will be geological information on specific sites, molecular chemistry (which orbital spectroanalysis does not handle well), and, most importantly, life science and organic chemistry information.

Diatomic oxygen, required for human life, is sufficiently chemically reactive that its presense in large quantities is a strong indicator of indigenous life. Thus, most planets worthy of consideration for ongoing exploration have active biospheres. The physical dangers a planet can present are usually well understood — but the threats posed by xenobiology are an unknown factor in any exploratory effort. Life is exquisitely complex, it adapts, it replicates itself.

A single incident of contamination with a toxic life form could result in the loss of an entire research expedition, or in the event of transfer back to the launch point (referred to as backburn), and could theoretically sweep throughout the entirety of humanity. The legacy of the Twilight War's dabblings with biological warfare has instilled a strong feeling of caution when dealing with previously unknown organisms.

Thus, built into exploratory processes are a series of tests and holds stemming from guidelines laid down at the time of the Melbourne Accords. No agency exists to enforce these guidlines, but most colonies have laws which restrict entry of vessels, personnel, and materials based on adherence to the Melbourn Guidlines.

If probe data does not indicate organic chemical activity, then either some inanimate agent is responsible for the presense of diatomic oxygen, or whatever life does exist is not compatible with and therefore presents no threat to terrestrial forms. Regardless, a second round of soft landing probes is deployed. These contain various terrestrial organisms which spend a minimum of four months on the planet's surface being monitored in sealed cages. At the end of this period, they are returned to orbit by automated launchers and examined in isolation for signs of pathology. In addition, atmospheric, soil, and subsurface samples are launched into orbit. All of these are returned and held for a period of six months in an analytical laboratory at the colonial base of operations. Assuming that no threat is observed within this period, the next step is manned landings.

Up to this point, procedures followed by the AAEC and the Pioneer Society are virtually identical. From here they diverge. Freeman and his society are urgently developing manned operations on planetside as quickly as possible. Their limited available capital requires that within the next 2 years they convince additional private backers to begin operations on one of their sites. The AAEC program, with governmental backing, has concentrated on survey and resource mapping. Their strategy has led them to establish orbital stations around promising planets and to minimize manned planetside operations. They now have two so-called "Campbell" stations in the Beta Aquilae cluster. When their isolation facilities on Acey-Acey are completed, they should be in good position to begin a number of extensive manned planetary operations.

When the decision is made to put personnel on planet, a site is selected and a self-contained exploration module is soft landed, near a body of water if possible. The standard complement for initial landing comprises a biologist, a geologist, a research physician, a hydrologist/meteorologist, an engineer, and a mission commander. The functions of the scientists are self-evident. The engineer is expected to evaluate the difficulty future personnel may have in ex-

tracting planetary resources, and to handle construction, maintenance, and modification of machinery and facilities required for the mission.

The commander has a diverse role. Generally coming from a military or scouting background, his job is to keep the program functioning and the landing party alive. Assuming there are no significant conflicts or hazards during the landing party's stay, his responsibilities are basically administrative. But, mission commanders in the past have defended their parties from hostile macroorganisms, kept scientific disputes from erupting into destructive conflicts, and decided that contamination of facilities required stranding of the party on planet indefinitely.

Shortly after the exploration module has landed, the team makes planetfall. Their first task is to remove the module's entry shell and begin assembly of the equipment packed within it for the descent. Over the next several days, they bring the module's living quarters, analytic laboratories, and computer/telemetry equipment on line. They also construct a rectenna grid from the internal skin of the reentry shell.

Simultaneously, the orbital crew assembles a geosynchronous satellite above the ground station. This converts solar energy to microwaves and beams them to the rectenna to meet power requirements. It serves as an orbital telemetry link for satellites and RPVs controlled by ground personnel. It also contains the exploration telemetry recorder.

The exploration vessel moves on to its next destination once it confirms that the planetside station is operational. The ground team now has a stay of six months ahead of them.

While on planet, the team stays busy in a variety of ways. They return samples to the facility for analysis. They conduct experiments within the station on the viability of various basic biological processes, given the planet's environment. RPVs are used to investigate remote sites in detail, and if warranted an RV-like vehicle is used to transport personnel to these for onsite examination. Seismic charges may be used to conduct subsurface imaging and analysis, and in some cases to clear surface material from interesting subterranean formations. Deeper corings are made to gain information on long-term geologic activity and potential mineral resources. If microbiological life has been discovered, experiments continue to study its interaction with terrestrial forms. Macrobiological life, if any, is observed and catalogued, and preliminary studies of its behavior conducted.

At three months mission elapsed time, the exploration vessel returns to drop supplies to the ground station, exchanging scientific information with the ground team as well as delivering news and personal messages from home. Samples are launched from planet and retrieved in orbit to be returned to the laboratories at the colonial base of operations. The interchange lasts about a week before the vessel moves on. It returns again in 3 months, at which time the project must have produced results. If no promising resources have been uncovered, or if the planet presents too many obstacles to future colonization, the effort is over. The ground crew and scientific equipment are recovered, but the station itself is left behind to baffle some alien archaeologist in later millennia.

If resources have been discovered, however, and seem accessible, the original crew is rotated off and replacement personnel take over. Additional equipment and personnel may be landed if the planet seems particularly promising. New mission goals and guidelines may be instituted based on earlier discoveries.

The original ground personnel return to the exploration vessel, but are kept in isolation from the flight crew for the voyage home. Upon arriving at the base of operations, the explorers are transferred to an isolation facility for 90 days. Here they receive extensive medical examination, to identify any pathogens and to determine whether the planetary environment has had any effect on their bodies. Isolation could hardly be described as exciting, but isolation facilities are carefully designed to allow non-contact interaction with the outside world. Such facilities allow the team to continue work begun during their time on planet, to examine information brought back by other exploratory groups, or merely to loaf if they so choose.

After another 90 days, personnel are rotated and added again. The number of explorers on planet is now around 20. This latest group includes a greater proportion of experts on resource utilization — mining engineers, agricultural planners, aquaculturalists, and so on. These experts are on planet, assessing and creating plans, working with the scientists, and often directing their efforts to determine whether colonization here would be not just possible, but practical. Often these planners are representatives from corporations or branches of government that are providing funding for the exploratory effort. At the end of their 90 day stay on planet, they too return home for isolation. Their reports, however, influence whether backing continues or not. Naturally, basic scientific research and survey continues throughout this process.

It has now been one year since humans first set foot on the planet. If funding is maintained, a second module will probably be dropped, and facilities constructed to house additional person-

The cages which maintain adequate life support for the terrestrial organisms introduce atmospheric and soil samples into the animals' environment, but do not allow microorganisms carried by the animal to leak out into the planetary environment.

Campbell stations have few sensors of their own. They serve as the control centers for a battery of satellites and probes within system. They do have laboratories for analysis of returned samples, and each has one OTV (Orbital Transfer Vehicle) for satellite rendezvous and repair, and recovery of sample packages. OTVs are capable of atmospheric entry under emergency conditions, but incapable of returning to orbit.

There are in fact two exploration telemetry recorders — one aboard the orbiting satellite, and one in the ground installation. These record all telemetry from sattelites and RPVs. In addition, the mission commander transmits a daily log in which he notes measurements, discoveries, and developments. In the event something disables or kills the ground team, the telemetry recorder can be invaluable in uncovering what happened. Advanced units used by the AAEC will also employ a stutterwarp torpedo which returns the orbital telemetry recorder to the colonial center of operations if no log entry is made for 48 hours.

Currently, all operations outside the ground station are conducted in environment suits. Full decontamination procedures are in effect to prevent pathogens from being introduced into the station.

When a number of systems are under simultaneous exploration, a single vessel will often daisy chain its way through the systems, servicing each ground station and conducting new spaceborn research as it goes.

Most isolation facilities are located in the outsystem of colonies to prevent concerns of contamination by local officials.

Planets which have have been freed from decontamination and isolation requirements are often referred to as "shirtsleeve worlds" by those involved in exploration, though the term is also used to refer to garden planets.

nel. Often a permanent launch facility is constructed on the surface. In this phase of operations, larger scale experiments begin. Resources are harvested from the planet based on the plans of the resource utilization team. These are processed in model facilities, and techniques and projections are refined based on the results. The number of individuals on planet now climbs upwards to 50 or 60. This process of exploration, crew rotation, and increasing use of resources can continue indefinitely. The next step, the petition for territorial rights, is purely administrative and economic. It is also a gamble. Putting the maximum number of people on planet prior to petition allows for a claim of a larger amount of territory, but if someone else should also be exploring the planet, and should advance their petition first, then much could be lost. Also, no materials can be commercially exported from a planet until such a claim is made.

This examination deals only with what happens if everything goes absolutely perfectly. This is rarely the case. As an absolute minimum, a planet can go from a wobble notation in an astronomer's notebook to a full fledged outpost in 4 years. At any step, lack of funds, unforeseen dangers, accidents, biological enigmas, red tape, or any number of other factors could slow the process down by months or years.

ADVENTURING OPPORTUNITIES

This and the exploration article published last year were written with adventuring in mind. Scenarios or even whole campaigns can be developed surrounding the incidents when opening up a single system. Naturally, the ideas presented here can be modified for campaigns in other arms. We have not emphasized specific task descriptions for various scientific endeavors as space was not sufficient. Most scientific tasks can be easily created by anyone wishing to run a science-heavy campaign.

Here are a few ideas to get you going on exploration-based adventure. Some of these refer to concepts presented last issue. (If you're a player and not a referee, you might want to skip reading these.)

- A stutterwarp probe is encountered, damaged and drifting in space. Its memory reveals a planet rich in resources. Its owners might pay a handsome reward for its return. So might others. As an alternative, the probe might show a hidden military base in a supposedly unoccupied system. The probe's data are not clear as to whose military base it is. If your crew is multinational, this could present some interesting situations.
- You are part of a ground contact team. A deadly organism has infected the team by destroying the bio-seals. Your only chance is to get to topnotch medical facilities on some colony. Even if you're permitted to return to isolation facilites as per procedure, you will probably die there. Do you nobly die for humanity, or do you attempt to escape shipboard or colonial isolation? Perhaps you know the bug is not contagious, but have a hard time convincing officials. Perhaps you have evidence the bug was genetically engineered by someone wishing the exploratory effort to fail.
- You are one of several resource teams (perhaps technical support) on planet. You decide to visit the facilities of a friendly competitor only to find all personnel brutally murdered. The only possible suspects are your own group, the other surviving team, or ... If the surviving competitors turn up dead, too... Emphasize the menacing mood on this one, ref.
- You have just discovered a tantalum deposit. A competing resource team on planet finds out about your good fortune. There are 16 of you and 24 of them on planet, and no one else. For the more bloodthirsty player, reverse the situation.
- You are a member of a Campbell Station. On a routine satellite retrieval, the OTV malfunctions and forces the retrieval crew to make emergency entry. This could be a search and rescue scenario if you are not on board, or a struggle for survival if you are directly involved. The world may hold many secrets. Can you hold out until rescue is attempted? Things sure look different from orbit, don't they?

These should give you a place to start. Read between the lines. Lots of stuff was put there.•

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The ASV-97: A Multirole Vehicle For The USMC

—by Karl Martin

ASV-97

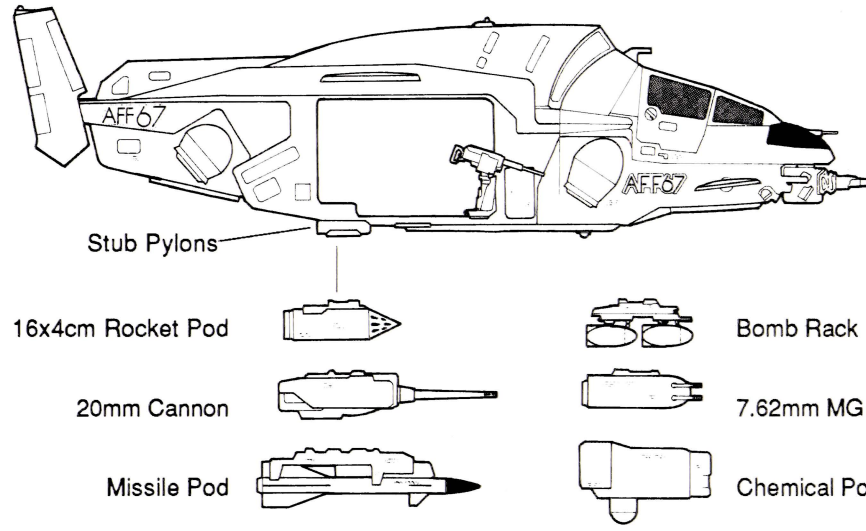
Crew: Pilot, copilot, two gunners

Performance: 4,000m ceiling, excellent nap-of-earth handling, 180 kph cruising speed, variable hover, 500km fuel range

Armament: 30mm cannon, two 12mm HMGs standard; 16 place 4cm rocket pod, 20mm cannon pod, air-to-air or air-to-surface missile rack, bomb rack, 7.62mm MG pod, chemical dispersal pod optional

There are currently three main versions of the ASV-97: the standard ASV-97C, the ASV-97 LAP (engines and thrust control modified for performance in thinner atmospheres), and the ASV-99RDP, a semi-experimental version mounting more powerful engines and adapted to breakaway ablative shield reentry.

The 99RDP was conceived as a vehicle that could be dropped out of low orbit, engaging its own engines in the middle atmosphere to provide fast troop deployment in strike situations. The 99RDP project has proven too costly and impractical, and most examples of this version have been returned to standard service.



In late 2297, the United States Marine Corp began production of the ASV-97 airship. The ASV-97 immediately began to replace older vectored-thrust and rotary-wing aircraft in the USMC Terra inventory, and by 2300 was supplanting older machines throughout the American Arm as well. Ten '97s were purchased by the Australians, who were impressed with the aircraft's performance in the King raid, where a flight of USMC '97s obliterated a well equipped pirate force attempting to hijack a surface shipment of tantalum ore from American mines on King (DM + 2 3312).

With a cruising speed of 180 kph, the '97 is definitely on the slow side, but this is more than offset by the aircraft's extreme maneuverability and outstanding stability as a weapons platform at all levels of its speed range. Additionally, the ASV-97 makes extensive use of VIFF (vectoring in forward flight), altering the angle of the thrust nozzles in midflight to make sudden changes in speed and heading. Combined with its heavy armor and versatile weapons capabilities, this makes the '97 a formidable battlefield opponent.

One of the more unusual features of the ASV-97 design is the inclusion of variable-length landing skids. With two landing gears extending from housings just ahead of the passenger bay and one from the centerline between the rear thrust nozzles, the '97 lands on a stable tripod. SMI engineers chose to increase this stability by allowing each gear to vary in length, so that when the aircraft lands on a slope, the fuselage is held level via extending the downslope gear and retracting the upslope one. Theoretically, this sytem can compensate for up to 35° of tilt, but in practice most pilots find the variable gear more of a nuisance than a help, and have the system disconnected.

Standard armament on the ASV-97 includes the 30mm cannon in the chin turret plus a pair of pintle-mounted servo-assisted 12mm machine guns on either side of the passenger bay. Two stub pylons on either side abaft of the passenger bay provide hardpoints for additional weapons, including rocket pods, 20mm cannon, air-to-air or air-to-surface missiles, bomb racks, 4 x 7.62mm machine gun pods, and chemical dispersal canisters. The pylons can also support ECM pods, winch equipment, or sling mounts for cargo. The passenger bay can carry twelve troops in full battle dress plus squad weapons, or four stretchers with medical support equipment, or a variety of modular equipment including a self-contained forward command post and communications center.

The ASV-97 is still in production, currently as the "C" version of the aircraft, and is expected to remain in first-line use at least until 2330.•

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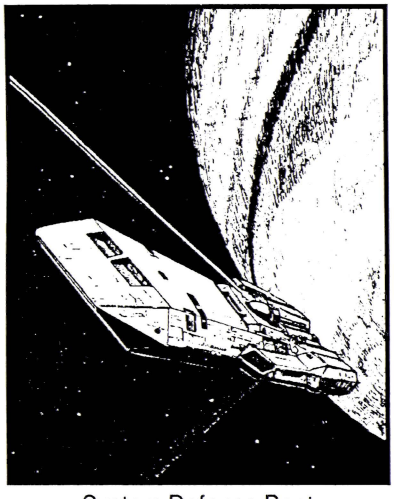

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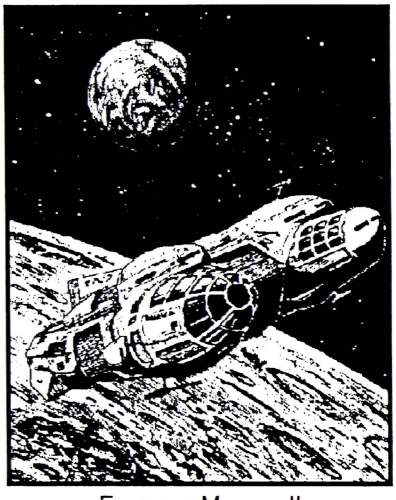

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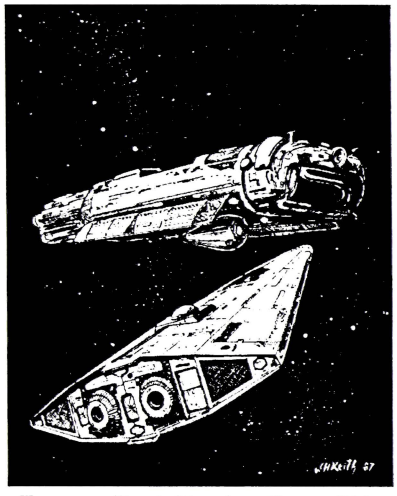

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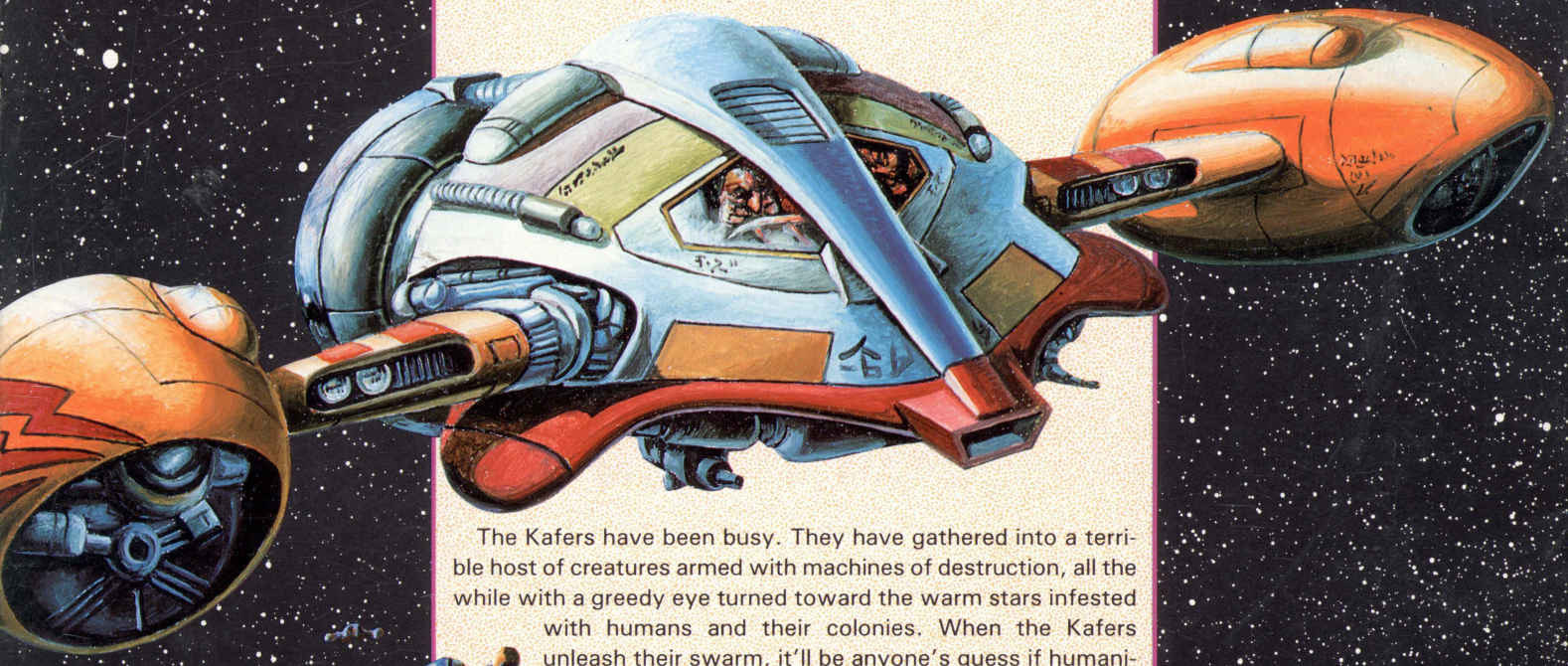
All this and more, coming in July. Look for issue #13 of the *Travellers' Digest!*

INVASION!

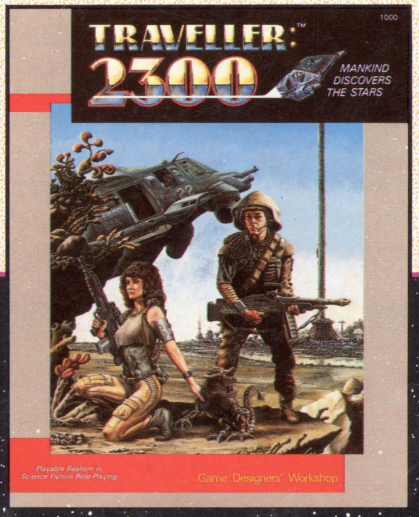
The Kafers Have Been Busy



The Kafers have been busy. They have gathered into a terrible host of creatures armed with machines of destruction, all the while with a greedy eye turned toward the warm stars infested with humans and their colonies. When the Kafers unleash their swarm, it'll be anyone's guess if humanity can survive this full-scale invasion!

Invasion is a 72-page **2300 AD** module covering the enormous Kafer onslaught and its aftermath. Great hordes of savage Kafers will swarm along the Arm, smashing human defenses at Beta Canum, to get to the human fleet bases at 61 Ursae Majoris. There they will face the final stand of human fleets at Queen Alice's Star, where humans hold the alien invasion at bay. Of course, wherever the Kafers reach, they will leave behind ground troops on human colony worlds and spacecraft in hidden side systems, waiting to disrupt and destroy anything human.

Invasion contains maps of all worlds involved, plus a map of the French Arm, with travel distances and crucial side routs. It also introduces a new type of Kafer warship, the *Sigma* class, used in many new *Star Cruiser* scenarios. With adventure suggestions, important NPCs, and detailed information about the invasion forces, *Invasion* will serve to generate **2300 AD** action for months of exciting play. $8.



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